

Environmental resistance materials in PAUD Merdeka curriculum project modules

Mila Setyaningrum¹, Betty Yulia Wulansari², Nurtina Irsad Rusdiani³

^{1,2,3} Muhammadiyah University of Ponorogo, East Jawa Timur, Indonesia

¹milasetyaningrum16@gmail.com, ²bettyyulia22@umpo.ac.id,

³nurtinairsadrusdiani@umpo.ac.id

Received
January 6, 2024

Revised
April 28, 2024

Accepted
May 8, 2024

Abstract

Early childhood need to receive stimulation to be sensitive to the environment. If children have developed a sense of caring for the environment, they will understand their responsibility in maintaining the environment around them. This research describes the material used to preserve the natural environment in the Merdeka curriculum. The type of research used is descriptive qualitative. This research approach uses a literature study method or literature study that uses journals or scientific articles, books, and references related to environmental conservation materials. Based on the research results, it can be concluded that Environmental resistance materials in the Early Childhood Education of Merdeka curriculum, which can be applied are 1) Cleanliness of the Natural Environment Applied, for example, children throw rubbish in the right place 2) Recycle rubbish; Applied example; children make crafts from used bottles, 3) Reforestation; Applied example; children plant trees in the school environment, 4) Mitigation Applied examples children are given examples of how to save themselves during an earthquake. 5) Go Green: Applied examples; children bring drinking bottles that can be used repeatedly (not plastic).

Keywords: *Environmental resistance material, Merdeka curriculum, early childhood education*

Abstrak

Nilai kepedulian lingkungan yang diterapkan dalam proses pembelajaran ini dapat diajarkan melalui kegiatan literasi. Proses pembelajaran dalam literasi alam akan memberikan kesempatan bagi peserta didik untuk berinteraksi langsung dengan lingkungan sekitarnya seperti tumbuhan, hewan, dan ekosistem alam lainnya. Penelitian ini bertujuan untuk mengetahui Materi Pelestarian Lingkungan Alam dalam Kurikulum Merdeka Paud. Penelitian ini menggunakan metode library reseach atau studi kepustakaan yang menggunakan jurnal atau artikel-artikel ilmiah, buku, dan referensi yang berkaitan dengan kurikulum merdeka dan konsep merdeka



belajar di jenjang PAUD.. Berdasarkan hasil penelitian dapat disimpulkan bahwa: (1) Materi Pelestarian Lingkungan Alam dalam Kurikulum Merdeka Paud merupakan perangkat pembelajaran yang dibuat untuk menyiapkan anak menjadi individu yang peduli terhadap lingkungan dalam hal ini bumi dengan tema aku sayanbg bumi. (2) Materi Pelestarian Lingkungan Alam dibuat dalam bentuk modul dan dikembangkan berdasarkan dimensi, elemen, dan sub elemen Profil Pelajar Pancasila. Yang terdiri dari 6 elemen yaitu: Beriman, bertaqwa kepada Tuhan Yang Maha Esa dan berakhlak mulia, Mandiri, Bergotong royong, Berkebhinekaan global, Bernalar kritis, dan Kreatif.

Kata Kunci: *Materi Pelestarian Alam, Kurikulum Merdeka, Anak Usia Dini*

INTRODUCTION

There is an urgent need to find answers to the growing environmental issues facing Indonesia and the rest of the world. Pollution, car emissions, industrial waste, climate change brought on by global warming, population growth, depletion of natural resources, waste disposal (particularly plastic and rubbish), extinction of biodiversity due to animal hunting for human protein needs, and deforestation or deforestation for plantation development are some of these issues. To address these environmental issues, concern must emanate from all societal levels.

Being environmentally conscious means having an attitude of prevention and working to restore any harm that has already been done to the surrounding natural environment. Developing good character from a young age is one way to combat environmental issues. Environmentally oriented learning can help with this character development. It is intended that students gain an awareness of the need to protect the environment and the natural world by studying environmental care. Establishing clean and healthy living habits in early childhood is an excellent place to start when it comes to developing environmentally conscious character in students. The character value of protecting the environment is deeply ingrained in children through this conduct (Harianti, 2017).

For young children to be environmentally aware, they must be stimulated. Children who have a strong sense of environmental responsibility will know that it is their duty to preserve the surroundings (Durkan et al., 2016; Fitriyah & Hasibuan, 2021). Early childhood students must be taught about the natural world. Learning about the natural environment requires the competence of educators who understand nature conservation efforts so that the learning applied to students takes place during learning hours and is sustainable. One way to eradicate the problem of environmental damage is to instill the character of caring for the environment in children at an early

age (Oktamarina, 2021). Similar to this, ecological education should be a part of the core curriculum at educational establishments. The concept under consideration is education incorporating aspects of environmental stewardship, including trash recycling, reforestation, disaster mitigation, and encouraging people to live more sustainably.

This justification indicates that the early childhood education curriculum must contain information on protecting the environment. The purpose of this study is to describe materials for environmental preservation.

METHOD

Researchers use qualitative research, especially descriptive qualitative research. The data described comes from journals or scientific articles, books, and references. The data is described to explain the existing reality (Sugiyono, 2015).

This research approach uses a literature study method, which uses journals or scientific articles, books, and references related to material for preserving the natural environment in the independent PAUD curriculum, namely, Cleanliness of the Natural Environment, Waste Recycling, Reforestation, Disaster Mitigation, and Go Green.

FINDING AND DISCUSSION

Material for preserving the natural environment in the independent PAUD curriculum includes:

1. Cleanliness of the Natural Environment

Cleanliness is an environment that is clean from air, water, and rubbish. According to Arifin (Hardiana, 2018: 501) cleanliness is a condition that looks clean, healthy, and beautiful. A clean environment is the fundamental right of every human being to obtain health in their livelihoods. Everything in the environment will affect the continuity of life and welfare of humans and other living creatures. Maintaining a clean environment requires human self-awareness as creatures with thoughts.

According to Subrata (2013: 14 and 16), an environment or living environment is all circumstances or conditions in nature that include living creatures and objects and form a harmonious life. These natural conditions will directly influence the living creatures' development and behavior. Subrata also mentioned that the human living environment can generally be divided into the natural environment and the social environment. The natural environment is the living environment around humans, while the social environment is the living environment that shapes and influences the behavior and personality of a

person or group of people. The two are closely related, so their existence determines their sustainability. The natural environment will only be well cared for and maintained with an excellent social environment. On the other hand, the social environment will not be well-formed if there is no good natural environment.

Based on the explanation above, humans, as living creatures who have thoughts compared to other living creatures, should be aware of protecting the environment, especially keeping the environment clean and free from rubbish, which can have a negative impact on both the environment and human life.

According to Hardiana (2018: 501), environmental cleanliness means a condition free from dirt, including dust, rubbish, and odors. Cleanliness is a human effort to protect themselves and their environment from everything dirty and disgusting to create and preserve a healthy and comfortable life. Cleanliness is a requirement for health, and health is one of the factors that can provide happiness. On the other hand, dirt not only destroys beauty but can also cause various diseases, and illness is one of the factors that cause suffering.

Furthermore, according to Iskandar (2018: 81), environmental cleanliness is the cleanliness of the residence, place of work, and various public facilities. The residence is cleaned by wiping windows and household furniture, sweeping and mopping the floor, washing cooking utensils and eating utensils (for example, with scouring ash), cleaning bathrooms and latrines, and throwing away rubbish. Environmental cleanliness starts with keeping the yard and gutters clean and cleaning the road in front of the house from rubbish.

Delivery of natural environmental cleanliness material at an early age at school can be based on M.T Zen, 2005 (Elmaela, 2016: 14-18) behavior to maintain the cleanliness of the living environment, including:

a. Throw Garbage in Its Place.

Anything solid and undesired is waste. Some of this trash decomposes, whereas some do not. Through the provision of facilities for dry, wet, and perishable waste (cans, glass, nails, etc), young children can be trained to distinguish between different types of rubbish, such as dry, moist, and perishable waste.

b. Participate in Community Service

Collaborate in maintaining a clean environment both at home and around the house, provide good community service with a structured schedule, and be responsible by following the community service schedule that has been determined. This material can be done by holding community service work once a week at school.

c. Maintain Cleanliness Of Toilets.

A good MCK (Toilet Washing Bath) means that it is kept clean by cleaning it regularly, and has ventilation. Children are given a schedule for cleaning the toilets at school.

d. Maintain Environmental Sanitation

Sanitation is a public health effort that focuses on the technical supervision of various environmental factors that influence or may influence the level of human health. Environmental sanitation is essentially an optimum environmental condition or condition that it has a positive effect on optimum health status as well (Azwar in Elmaela, 2016: 15). Children are scheduled to clean the school gutter once a week, clean and replace the water bucket every day.

e. Using Clean Water

Water is a basic need for life, and humans need water throughout their lives. Humans use water for various purposes such as bathing, washing, toileting, food production, shelter and clothing. Clean water can be obtained through PAM, wells, rainwater, etc. Activities can be carried out with socialization or telling stories about using clean water.

f. Washing Hands with Clean Water and Soap

Washing your hands with soap has several advantages, including killing disease-causing bacteria and preventing the spread of worms, skin conditions, acute respiratory infections, bird flu, diarrhea, cholera, dysentery, typhus, and severe acute respiratory syndrome (SARS). It also leaves your hands feeling clean and germ-free. Children wash their hands both before and following meals.

2. Waste Recycling

Recycling is the process of turning used materials into new materials with the aim of preventing waste that could actually become something useful, reducing the use of new raw materials. 1 Recycling can also be interpreted as reusing materials or goods that are no longer used in another form. Waste recycling is the activity of reprocessing waste or consumable products into useful new products.

In the Central Indonesian Dictionary (KBBI), recycling means an activity or reprocessing of materials that have been used. This means that used items such as plastic, paper, metal, glass, and so on, will be reprocessed to be used into new, valuable products.

Recycling and reuse have objectives including the following:

- a. Reducing the amount of waste to reduce pollution or environmental damage.
- b. Reducing the use of materials or natural resources.
- c. Earn income because you can sell it to the public.
- d. Preserving the life of creatures found in a particular environment.
- e. Maintaining the balance of the ecosystem of living creatures in the environment.
- f. Reducing inorganic waste because some inorganic waste can last up to 300 years.

Waste recycling activities at school first teach children to differentiate between types of waste that can be recycled (plastic, used bottles, paper, and organic waste). Furthermore, based on the type of waste, children are taught to process waste into goods with use value. For example, children make crafts from used plastic, make crafts from used bottles, make organic fertilizer from leaf waste/household vegetable waste. The results of this recycling can be exhibited during school activities.

3. Reforestation

The definition of reforestation is replanting deforested or barren forests to restore the function and life of disturbed forest ecosystems. In reforestation, plant seeds are planted as replacements for felled trees, which is important in rebuilding disturbed forest habitats and ecosystems. Reforestation involves planting trees in degraded or denuded areas, helping to restore the forest canopy and maintaining biodiversity. Apart from that, reforestation makes a double contribution in dealing with the environmental crisis.

Reforestation is an important step in restoring forests that have experienced damage. By replanting denuded trees, reforestation helps restore ecosystem function, maintain soil fertility, protect water sources, and provide important benefits for the environment and human life.

The benefits of reforestation are very significant in preserving the environment. The following are the benefits of reforestation:

- a. Reduces soil erosion due to wind and water
- b. Maintaining the fertility of surrounding agricultural land
- c. Increase soil water content
- d. Maintaining the sustainability of groundwater basins
- e. Restoring biodiversity
- f. Prevent desertification

- g. Reducing the risk of flooding by increasing water storage capacity in forests
- h. Protecting mountainous areas from landslides
- i. f. Provides a source of wood and utilizes fruit, leaves, and others
- j. Absorbs and stores carbon dioxide (CO₂) to reduce the greenhouse effect

Reforestation activities that can be carried out by young children include planting plants in the school environment, cleaning every room and environment around the school, throwing rubbish in its place and providing rubbish bins in every room.

4. Disaster Mitigation

Disasters can occur at any time and can cause risks or impacts. In this case, the disaster in question can arise due to natural phenomena or due to human actions. Disaster mitigation needs to be carried out as an effort to reduce the impact of disaster risk. Disaster mitigation must be taken into account and carried out carefully. According to Article 1 paragraph 6 of Government Regulation Number 21 of 2008 concerning the Implementation of Disaster Management, mitigation is defined as a series of efforts made to reduce disaster risks, either through physical development or awareness and increasing capabilities in dealing with disaster threats.

The disaster risk in question includes loss of life, environmental damage, loss and loss of property (houses, furniture, etc.) as well as psychological impacts. In English, disaster mitigation is called disaster mitigation. Reporting from Public Safety Canada, disaster mitigation actions are actions taken to eliminate or reduce the impacts and risks of danger through proactive actions taken before a disaster occurs. It could be said that disaster mitigation actions are carried out before the predicted disaster will occur. Mitigation measures and procedures are adjusted to government policies in each country.

Another goal of disaster mitigation is to increase community knowledge in dealing with and reducing disaster risks, so that people can live safely and comfortably. Disaster mitigation is also intended as a basis for development planning.

5. Go Green

Go-Green is an action to save the earth which is currently experiencing damage and global warming as a result of our own actions. Go Green can also be called "Greening". destroying nature and our environment such as the large number of motorized vehicles, the use of plastic bags, etc.

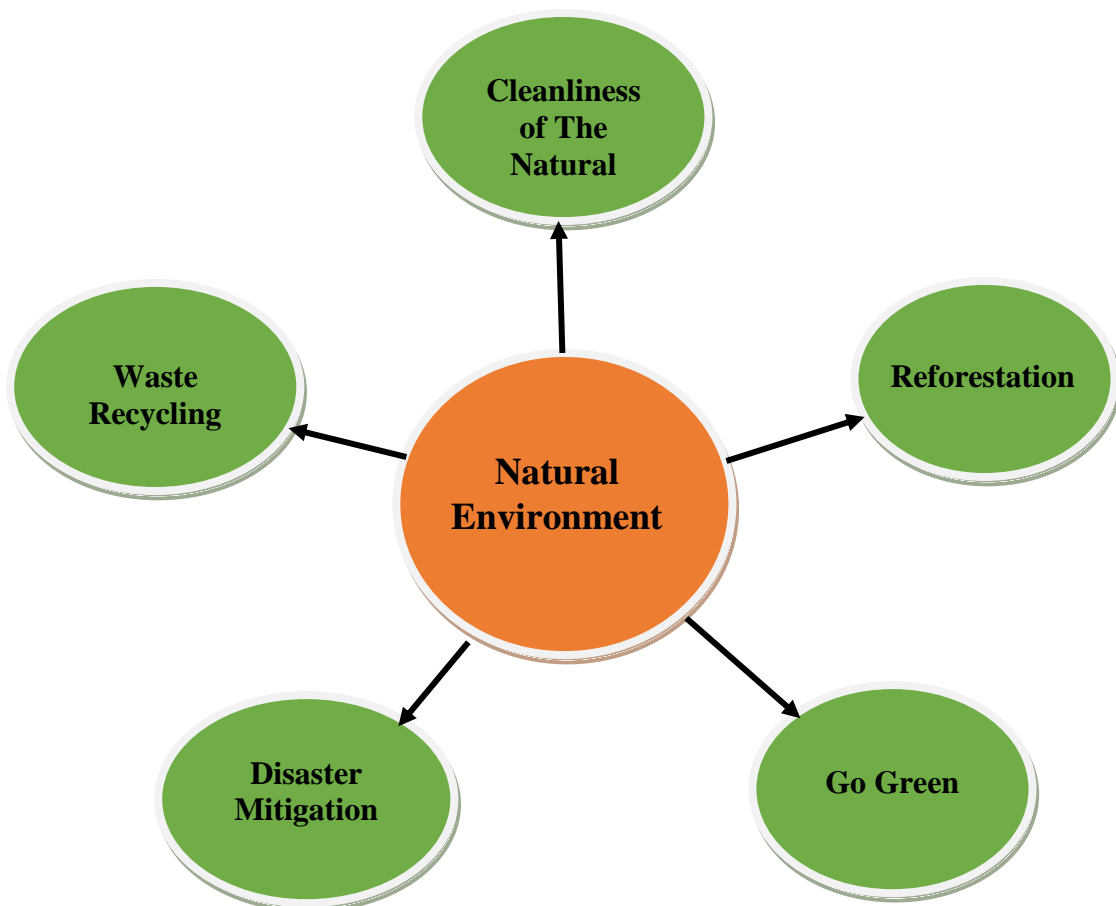
To face this, humans must make big changes, even though change is not an easy thing, it would be better if the change started from each of us.

The aim of Go Green is to make us aware of protecting and preserving nature, not destroying it. For its benefits itself, this earth more beautiful, clean, healthy and green and reduce the impact of Global Warming.

The following are concrete steps that can be implemented to implement going green in early childhood:

- a. Don't throw rubbish carelessly, children are provided with rubbish bins so that children can dispose of rubbish according to its type.
- b. Use clean water as needed, children are taught to turn off the water tap after use.
- c. The action of planting vegetables together using homemade recycling pots
- d. Save electricity usage as efficiently as possible, children are taught to turn off the lights after the learning period is over
- e. Make plant pots from used bottles
- f. Sorting waste, recycling that can be reused
- g. Bring a drinking bottle that can be used repeatedly to reduce plastic bottle waste.

The following is a concept map related to material for preserving the natural environment in the independent PAUD curriculum



CONCLUSION

Based on the research results, it can be concluded that: Material for Preserving the Natural Environment in the Merdeka Early Childhood Education Curriculum is a learning tool created to prepare children to become individuals who care about the environment. Material for Preserving the Natural Environment in the independent PAUD curriculum, which can be applied is; 1) Cleanliness of the Natural Environment; Applied example; children throw rubbish in the right place 2) Recycle rubbish; Applied example; children make crafts from used bottles, 3) Reforestation; Applied example; children plant trees in the school environment, 4) Mitigation Applied examples children are given examples of how to save themselves during an earthquake. 5) Go Green: Applied examples; children bring drinking bottles that can be used repeatedly (not plastic bottles).

REFERENCES

- Ajeng Ninda Uminar, Anisa Purti, Nurtina Irsad Rusdiani, Darul Arifin. (2022). *Inovasi pembelajaran pada lembaga paud dimasa pandemi*. Jurnal pendidikan dan anak usian dini Vol. 2 no 1 2022
- Ansori, M. (2020). *Metode penelitian kuantitatif Edisi 2*. Surabaya: Airlangga University Press.
- Chairun Fadillah Nisa, dan Hibana. (2022). *Analisis kurikulum merdeka belajar mandiri dalam satuan pendidikan anak usia dini*. 8 (2): 120-37.
- Departemen Pendidikan Nasional. (2004). *Acuan menu pembelajaran pada kelompok bermain*. Jakarta: Direktorat Pendidikan Anak Usia Dini.
- Departemen Pendidikan Nasional. (2005). *Modul sosialisasi pentingnya pendidikan anak usia dini*. Jakarta: Direktorat Pendidikan Anak Usia Dini, Dirjen PLS, 2005.
- Fakultas Pertanian Unmuh Sumatera Utara. (2022). *Reboisasi , Pengertian Dan Manfaat*
- Hamdani Fakhrudin dan Suprapno. (2022). *Pengembangan Kurikulum Merdeka. Ke-1*. Malang: CV. Literasi Nusantara Abadi.
- <https://haidarastgreen.wordpress.com/tag/manfaat-penghijauan/>
- <https://kurikulum.kemdikbud.go.id/>
- <https://kurikulum.kemdikbud.go.id/unduhan>
- Jalal, Fasli. (2005). Arah kebijakan nasional pendidikan anak usia dini (jalur pendidikan non formal). *Makalah disampaikan pada semiloka nasional pendidikan anak dini usia*. Depdiknas, Jakarta, 9-12 Oktober 2005.

- Jamaris, Martini. (2006). *Perkembangan dan pengembangan anak usia taman kanak-kanak*. Jakarta: Grasindo.
- Kemendikbud. (2022). *Buku saku kurikulum merdeka; tanya jawab*. Kementerian Pendidikan dan Kebudayaan, 1–50.
- Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia. (2022, 20 Juli). *Kurikulum dan Pembelajaran*. Diambil kembali dari Kompas.com. (2021). *Mitigasi bencana: pengertian, tujuan, jenis dan contohnya*
- Kristiana, Dian. (2017). *Peningkatan nilai-nilai karakter anak usia dini melalui kesenian reog ponorogo*. *Indria Jurnal Ilmiah Pendidikan Pra Sekolah Dan Sekolah Awal*. Vol. 2 no 1 2017
- Lina Retnaningsih Eka dan Ummu Khairiyah. (2022). *Kurikulum merdeka pada pendidikan anak usia dini*. *Jurnal program studi PGRA* 8 (1): 143–58.
- Mumayzizah Jannah Miftahul, dan Harun Rasyid. (2023). *Kurikulum merdeka: persepsi guru pendidikan anak usia dini*. *Jurnal Obsesi. Jurnal Pendidikan Anak Usia Dini* 7
- Mustofa, D., Soendjodjo, R. P., Nurmiati, Susanti, A., & Yuliantina, I. (2022, September 22). *Pedoman pengembangan tema pembelajaran anak usia dini*. Jakarta: Direktorat Pembinaan Pendidikan Anak Usia Dini. Dipetik Oktober 17, 2022
- Novenda Alfian Nur Putri, Ida Yeni Rahmawati, Dian Kristiana. (2022). *Implementasi model pembelajaran cerdas berbahasa indonesia fonik (CBI FONIK) dalam menstimulus kemampuan menyimak anak usia dini*. *Journal Paedagogy* Vol. 9 no 4 2022
- Prameswari, Titania Widya. (2020). *Merdeka Belajar: Sebuah Konsep Pembelajaran Anak Usia Dini Menuju Indonesia Emas 2045*. *Prosding Seminar Nasional Penalaran dan Penelitian Nusantara* 1: 76–86.
- Prianti, Dkk. (2022). *Analisis kurikulum merdeka dan platform merdeka belajar untuk mewujudkan pendidikan yang berkualitas*. *Jurnal Penjaminan Mutu* 8: 238–44.
- Sugito, Betty Yulia Wulansari. (2016). *Pengembangan Model Pembelajaran Berbasis Alam Untuk Meningkatkan Kualitas Proses Belajar Anak Usia Dini*. *Jurnal Pendidikan Dan Pemberdayaan Masyarakat*. Vol 3 no 1 2016
- Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Jakarta: Alfabet.
- Susanto, A. (2014). *Perkembangan anak usia dini: pengantar dalam berbagai aspeknya*. Kencana.
- Suyanto. (2005). *Konsep dasar anak usia dini*. Departemen Pendidikan Nasional.

Waste 4 Change. (2024). Daur ulang sampah dan upaya atasi penumpukan sampah

Wulansari, Betty Yulia. (2017). Model pembelajaran berbasis alam sebagai alternatif pengembangan karakter peduli lingkungan. journal umpo.ac.id. Vol. 5 no 2 2017