

Integration of Environmental Care Character Education Through Circural School at SDIT Muhammadiyah Al-Kautsar

Harun Joko Prayitno^{1, a)}, Shafira Dyah Utami^{2, b)}

^{1,2} Faculty of Teacher Training and Education, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia

 a) corresponding author : harun.prayitno@ums.ac.id
 b) another author : a510190263@student.ums.ac.id

Abstract. Education is widely recognized as a key aspect and top priority for all stakeholders involved. Character education is a pedagogical endeavor aimed at imparting knowledge and skills to youngsters in order to cultivate positive behavioral patterns and foster active engagement in beneficial societal endeavors. Hence, it is important to cultivate this mindset from the formative years, particularly within the context of primary education. This scenario exemplifies the appropriateness of enhancing students' environmental conscientiousness via the implementation of a circular school model. The primary objective of the study discussed in this article is to provide a comprehensive account of the implementation of environmental care character education within the framework of a circular school at SDIT Muhammadiyah Al-Kautsar. This type of research is descriptive qualitative. The subjects of this study were 31 students of class VI in semester I of the 2022/2023 academic year. Data collection techniques are collected through observation, documentation, and interviews to explore the integration of environmentally caring character education through circular schools. The validity of the data used by source and technique triangulation. The data analysis used is ethnographic research, starting from selecting an ethnographic project, asking questions, collecting data, recording data, analyzing data, and writing reports. The results of the research show that the integration of environmentally caring character education for students using the circular school approach is going well. This activity concluded that the formation of the character of elementary school-age children can be done through a circular school approach.

INTRODUCTION

The relationship between the environment and humanity is inherently interconnected and interdependent. By incorporating sustainability into human-centric practices, there is potential to enhance the overall quality of life. Consequently, it is essential for individuals to possess the capacity to effectively govern and safeguard the environment. Nevertheless, it is important to acknowledge that the present condition is characterized by a significant decline in environmental quality (Saputra & Faizah, 2017). It is imperative that we do not disregard the issues that arise. According to Hasnidar (2019), forthcoming generations will be afforded the prospect of coexisting harmoniously in an atmosphere characterized by tranquility on the planet. The environmental challenges and degradation seen may be attributed to the ongoing exploitation of the environment and its natural resources by human activities. The aforementioned factors include a range of environmental concerns, such as the decline in biodiversity, acidification of the oceans, air and water pollution, alterations in climate patterns, deterioration of land resources, and contamination of marine ecosystems (Barnosky & Hadly, 2015).

Indonesia's social structure has developed as a result of industrialization and globalization so that at this time Indonesia is losing its personality and identity. The Indonesian nation is more pragmatic and materialistic than spiritual and humanist, this is reflected in their social identity. In terms of education, the younger generation is now more inclined towards anti-social behavior, violence and individualism (Efendi, Barkara, & Fitria, 2019; Susanto, 2013). In this interdependent life, humans are the main subjects who depend on natural resources for their survival. In this regard, it makes humans lose sight of who they are and to meet their own needs. This can cause degradation or decrease in environmental quality (Narut & Nardi, 2019; Siskayanti & Chastanti, 2022).

Confrence Dates: SePublished: De

: September $14^{th} - 16^{th}$, 2023 117 : December 13^{th} 2023

Theme : Personalized Learning and The Use Of Technology To Provide Customized Educational Experiences For Students in The Era of VUCA:



Researchers who are studying the deterioration of the planet place significant emphasis on the criticality of maintaining robust and functional ecosystems, which are vital for the well-being of all organisms, including human beings (Ardoin & Bowers, 2020; Environment, 2019). In everyday life, we have to decide between various kinds of attitudes that are good or bad for the environment. It is very important to convey an understanding of the importance of environmental protection to improve human ecological awareness. It is hoped that a comprehensive understanding will be able to influence people's behavior to care more about the environment (Narut & Nardi, 2019). Public awareness of the importance of caring for the environment is still weak. Littering is still a behavior that is often carried out by children, teenagers and even adults. Protecting and restoring the global environment will require transformative changes in human production and consumption-related behavior, reflecting individual choices as well as larger-scale, culturally mediated collective actions (Ardoin & Bowers, 2020; Environment, 2019; Mastrángelo et al., 2019).

Regarding human indifference to the state of natural resources and the environment, changing behavior is the main goal to overcome the environmental crisis. In order to preserve the environment, one must pay attention to the specific facts and the impact of their actions (Rini, Sukaatmadja, & Giantari, 2017). Hence, it is crucial to provide knowledge to kids on the significance of environmental stewardship. Education has a crucial role in effecting a transformation in human conduct, namely via the cultivation of a compassionate disposition from a young age, with the aim of addressing environmental apprehensions. Education is often regarded as the most effective means of fostering and disseminating information pertaining to the significance of environmental protection (Efendi et al., 2019). Environmental care education has become part of the school curriculum (Wakhidah, 2014). This can be seen from the beautiful and lush layout of the school. However, the idea of environmental protection has not been fully incorporated into everyday life. Education is the most important factor that requires special attention from all parties, because education will determine the future development of a nation, especially the Indonesian nation. The 2013 skills curriculum places great emphasis on character development, which includes concern for the environment or character education through adiwiyata (Nuzulia, Sukamto, & Purnomo, 2019). Education must be used to instill, understand and increase knowledge about the value of sustainability and maintaining environmental quality (Marjohan & Afniyanti, 2018). Character is very important to develop a person's personality or the personality of a nation, observers propose many solutions, one of which is character education (Ariyani & Wangid, 2016).

The term "character" refers to the basic moral values of caring, honest, fair, responsible and respectful towards others and oneself (Character Education Partnership, 2003 in (Heidari, Nowrozi, & Ahmadpoor, 2016). Character education is a methodical, comprehensive, and well-thought-out strategy for teaching moral principles (Birhan, Shiferaw, Amsalu, Tamiru, & Tiruye, 2021). The Language Center of the Ministry of National Education defines character as "innate, heart, soul, personality, character, behavior, personality and nature". Character is personality, behavior, nature, and character (Annisa, Wiliah, & Rahmawati, 2020). Character education is an effort to build character (character building). Character building is the process of character formation, which is the process of forming the soul in such a way that it becomes distinctive, attractive and different from other people. Similar to how the individual letters of the alphabet possess distinct qualities, individuals with character may be discerned from those without character (Annisa et al., 2020).

Character can be seen from honesty, which is honest in speech, is open, and consistent with what is said and done. Mature character development requires a continuous process and continuity throughout life. There are many challenges in developing character, one of which is the development of information and technology related to globalization. Many foreign cultures can be quickly assimilated and impact attitudes and behavior. Schools that are only concerned with cognitive values will fail in developing human characters (Prabandari, 2020; Siskayanti & Chastanti, 2022). Character education in schools is a very important need to provide the next generation with the basic skills needed in life (A, 2014; Asrial et al., 2022).

Based on the joint regulation of the Minister of Environment and Minister of National Education No. Kep.07/MenLH/06/2005 and N0. 05/VI/KB/2005 to promote and improve environmental education. Education plays an important role in nation building. It is hoped that the state can become a decent nation through education. Character education from an early age is very important, especially in elementary schools, which is one of the most important educations for children. Students must be involved with the environment when they want to develop character because character cannot function in a vacuum but plays a role in protecting the environment (Efendi et al., 2019; Wuryandani, Fathurrohman, & Ambarwati, 2016). As social creatures, humans must have a positive view in interacting with nature and have a responsibility to protect the environment (Maunah, 2016).

Elementary school is one level of school. Elementary school students are usually aged 6-12 years. Children aged 7-11 years already have some well-integrated basic structural skills, such as the ability to classify things into different hierarchical groups. Based on this behavior, it can be concluded that children aged 7-11 years already have a classification system, so it can be interpreted that they can be invited to think, classify, categorize, and

Theme : Personalized Learning and The Use Of Technology To Provide Customized Educational Experiences For Students in The Era of VUCA:



classify (Fahrian, Suwerda, & Husein, 2018; Monks, Knoers, & Hadinoto, 2002). Based on research conducted, a positive association has been observed between behavioral objectives pertaining to trash management and the level of comprehension about sustainable waste management practices. The prioritization of information-based behavior over behavior rooted in non-knowledge is a prevalent trend. Empirical evidence suggests that an individual's knowledge and cognitive capacities significantly shape their decision-making and conduct within their environment (Gusti, Isyandi, Bahri, & Afandi, 2015)

The circular school itself originates from circular economics, where these activities are related to being able to create formulations to reduce the waste population by converting waste into materials of economic value. A resource utilization system known as a circular economy involves reducing, reusing, and recycling resources directly (Darmastuti, Cahyani, & Ali, 2020; Schröder, Anantharaman, Anggraeni, & Foxon, 2019). The objective of the circular economy seeks to maximize productivity by minimizing resource consumption as well as negative side effects, as well as reusing the waste generated in production processes (Moriguchi, 2007). In accordance with this, the school stated that the government's movement is to build a greener, waste-free country by optimizing the potential of goods until the point that their economic potential is exhausted. Through a circular economy, it gives schools a breath of fresh air regarding techniques for handling waste properly. The circural school program itself consists of a waste bank related to waste management in schools, fish ponds, biopori, hanging gardens, tabulampot, and hydroponics.

Preliminary studies have been carried out by (Purnami, 2021) that waste management is the main thing that needs to be handled carefully from start to finish. Good waste management must be taught from an early age to children. Environmental education through good waste management is a foundation that needs to be developed in early childhood so that they have an understanding of environmental awareness. Awareness of the environment will develop an attitude of concern for the ecology. Awareness of the environment, especially in terms of waste management, can be started with an understanding of waste (Neolaka, 2008). In line with the research by Huda & Rajagukguk (2020), they explain that waste management and the use of biopores are examples that can help people develop a more conscious attitude towards the environment. If waste management, prevention of pollution, and preservation of flora and fauna are carried out regularly, the character of caring for the environment can be created properly. One step in preserving the ecology of where we live is by managing waste and utilizing biopores.

From the results of the research described above, a positive environment can improve student performance and creativity. School is a significant place to implement character education for children. Therefore, the objectives of this research are: 1) describing circural schools related to waste management and the green movement or going green, 2) integrating environmentally caring character education through circural schools at SDIT Muhammadiyah Al-Kautsar, 3) inhibiting factors and solutions for implementing environmentally caring character education through programs circular school. Given the aforementioned context, it is anticipated that the implementation of character education may foster a sense of environmental consciousness among students, hence promoting the maintenance of ecological equilibrium.

METHOD

The type of research used is qualitative descriptive research. The approach used in this study is a qualitative approach (Bogdan & Biklen, 1998; Miles & Huberman, 1994). Qualitative research focuses on exposure to events and is "generating theory" not "hypothesis-testing", so that in the preparation of substantive theories based on empirical data in the field (Hasnunidah, 2017). Qualitative research requires researchers to be present directly in the field to obtain the right data. Descriptive research is the most basic research. This research only manifests or describes the observed events, both natural and artificial. In terms of content, it describes activities, characteristics, relationships, as well as similarities and differences with other events (Rubiyanto, 2013). The research findings are then explained verbally and linguistically using scientific methods (Lexy J, 2012).

This research design was used by researchers to obtain complete information about the Integrated Environmental Care Character Education through Circural School at SDIT Muhammadiyah Al-Kautsar. The object studied is the Integration of Environmental Care Character Education through Circural School which involves class VI students. The sampling technique is purposive sampling. Purposive Sampling or deliberate selection which aims to select informants based on criteria that are considered to be able to provide maximum data (Bungin, 2010; Margono, 2010). Data was collected through observation, documentation and interviews (Sugiyono, 2014). This researcher interviewed the teacher, several students, and the chief executive.

For observation activities, researchers observe students and also teachers in carrying out activities related to the topic. For documentation, researchers took several pictures related to the program that had been implemented. The data validation used is source and technical triangulation. The data analysis used in this research is ethnography. Ethnography describes the structure of social organizations, social activities, symbolic meanings,

Theme : Personalized Learning and The Use Of Technology To Provide Customized Educational Experiences For Students in The Era of VUCA:



material sources, and interpretive processes typical of a particular group of people (Duranti, 1997). Ethnography studies people in time and space in their everyday lives (Hallett & Barber, 2014). There are six steps in ethnographic research: choosing an ethnographic project, asking questions, collecting data, recording data, analyzing data, and writing a report (Spradley, 1980).

RESULTS AND DISCUSSION

The results of research related to the circular school at SDIT Muhammadiyah Al-Kautsar show that this school is trying to build a school that cares about environmental balance. SDIT Al-Kautsar is an elementary school located in Gumpang Village, Kartasura District. As we know, the environment and humans cannot be separated because these two components are interconnected. In this regard, the school chose the circural school approach because this approach was considered more effective than the previous approach in managing waste in the school environment. In the previous approach, schools only used ways to process plastic waste into crafts made by students. Nevertheless, with the passage of time, this approach has been seen to be less effective. Consequently, subsequent to engaging in outreach endeavors, the school administrator conceived the notion of implementing trash banks as a means to diminish waste, while concurrently generating economic value via the establishment of a circular economy.

The implementation of the integration of environmentally caring characters linked to circular schools is carried out through various programs that have been planned by the school. Students are asked to participate in realizing the circular school program with the hope of being able to foster a sense of love and care for the school environment. As future generations who are agents of change, it is best to instill an attitude of caring about the environment from an early age. Schools can help students, especially those in elementary school, develop a caring attitude towards the environment. Elementary school students generally have a mindset that can be encouraged to recognize and understand the value of preserving the environment (Idrus & Novia, 2018; Munnawir, 1997; Nugroho et al., 2020; Prihastari & Widyaningrum, 2018). The following are the programs in circular school: 1) waste bank; 2) fish ponds; 3) Al-Kautsar garden which includes biopori, hanging gardens, tabulampot, and hydroponics. Of the many circural school programs, only a few programs involve mandatory student participation, including waste banks, hanging plants, tabulampot, and hydroponics as explained by the school.

Based on observations in the school environment, there are two types of waste found, namely organic waste and inorganic waste which can be seen in Table 1.

| | TABLE 3. Types of Waste in the School Environment | | | | | |
|----|---|--|--|--|--|--|
| No | Types of Organic Waste | | | | | |
| 1 | Leftovers | | | | | |
| 2 | Leftover drink | | | | | |
| 3 | Tree twigs and leaves | | | | | |
| No | Types of Inorganic Waste | | | | | |
| 1 | Tissue | | | | | |
| 2 | Paper | | | | | |
| 3 | Plastic bottles | | | | | |
| 4 | Plastic bags | | | | | |
| 5 | Plastic cups | | | | | |
| 6 | Food packaging | | | | | |
| 7 | Drink packaging | | | | | |

Based on Table 1, it can be seen that in the SDIT Muhammadiyah Al-Kautsar school environment there are 3 types of organic waste and 7 types of inorganic waste. Based on the table above at SDIT Muhammadiyah Al-Kautsar, some of the waste produced by school residents is inorganic waste. There are 7 types of inorganic waste that have been found in the school, including tissue, paper, plastic bottles, plastic bags, plastic cups, food packaging and beverage packaging. If this inorganic waste is not managed well, it will become a new problem in the school environment. Currently, the amount of plastic waste piled up in Indonesia is 5.4 tons every year, accounting for 14% of household waste (Marniati et al., 2021; Purwaningrum, 2016; Widiyatmoko, Purwaningrum, & P., 2016). For this reason, the school has provided rubbish bins as a final disposal sitePrior to being deposited into a sizable receptacle often referred to as a waste bank, the aforementioned material will thereafter be disposed of at a designated landfill site. The students shall actively dispose of waste materials in the designated waste receptacles supplied by the educational institution. The implementation of this trash bank is anticipated to address issues pertaining to the generation of inorganic waste by students. The successful



implementation of trash disposal practices, in terms of proper placement and segregation based on waste type, is contingent upon the collective will and knowledge of the community (Mahyudin, 2014).

The resulting paper waste, ranging from exam papers to documents that are no longer used, will usually be collected together and then sold to waste sales points. This is related to the circular economy, which reduces waste to produce its economic potential. That way, if there is plastic or paper waste in a student's house, it can then be collected in the waste bank at the school, so that the waste can produce economic value. The school also socializes that after lunch the food containers that have been used are immediately washed in the place provided. The students' food waste will then flow into the fish pond in the school yard, so that the food waste does not get scattered. Organic waste has the potential to undergo conversion into fertilizer, hence facilitating the process of growth. Compost and liquid organic fertilizers are derived from organic waste materials. The process of composting has the potential to enhance and replenish the fertility of soil. The compact nature of hard soil is transformed into a more porous and friable state. The transformation of infertile land into a productive and fruitful state occurs. The acidity of soil tends to shift towards neutrality (Darnetti, Arnayulis, Nefri, & Elita, 2021; Hazam, Saam, & Tarumun, 2020; Susanti & Rusnandi, 2016).

Plastic is often used by students for purchasing beverages in the school cafeteria during instructional periods. The use of plastic goods has the potential to give rise to significant environmental challenges (Purwaningrum, 2016). Plastic trash is a significant challenge not just in urban areas but also in marine ecosystems. In addition to its adverse impacts on human health and the mortality of protected species, plastic trash has a substantial deleterious influence on ecosystems. Plastic waste refers to waste materials that have a low capacity for natural decomposition. An environment that is free from contaminants and pollutants contributes to the creation of a living space that promotes good health and comfort, particularly inside educational institutions. The provision of a clean school environment is conducive to a comfortable learning experience. Hence, it is essential to prioritize the dissemination of knowledge pertaining to garbage sorting and management, with a particular emphasis on the younger demographic (Hansen & Yuliawati, 2019; Puspitasari, Sugoro, Elfidasari, & Perdana, 2018; Zakiatunnia et al., 2021).

In connection with the table above, the types of waste at SD IT Muhamamdiyah are classified into 2 types of waste: organic and inorganic waste. This is in line with research conducted by Ponisari, Syam, & Susena (2019) regarding waste management and management in the school environment, there are 2 types of waste in the school environment, namely organic and inorganic waste. Waste can be managed by limiting the use of bottles, plastic waste and paper food waste, by burning, landfilling and composting waste. At SMP Muhammadiyah Al-Amin Sorong, management is carried out by reducing waste (Reduce) and recycling (Recycle). Just like the observations made at SDIT Muhammadiyah Al-Kautsar, there were 2 types of waste, namely 3 pieces of organic waste and 7 pieces of inorganic waste.

Previously, waste management at schools was carried out according to the 3R principle (reuse, reduce, recycle), namely Reduce, Reuse and Recycle. However, the process is still not going well because students only understand their knowledge without practicing it directly. If this principle is continued, waste will not accumulate in the school environment, which can cause bad odors and disrupt the teaching and learning process. The data collection for this study included conducting observations and interviews with a sample of 31 participants, including instructors, chief executives, and students. The waste management data conducted at SDIT Muhammadiyah Al-Kautsar is shown in Table 2.

| No | Description | F | % (Yes) | F | % (NO) |
|----|--|----|------------|----|--------|
| 1 | Throw garbage in its place | 31 | 100 | 0 | 0 |
| 2 | Distinguish between organic and inorganic | 23 | 74,20 | 8 | 25,80 |
| 3 | Waste | 18 | 58,07 | 13 | 41,93 |
| 4 | Know the 3R program (reuse, reduce, recycle) Bring eating and drinking utensils from home | 22 | 70,97 | 9 | 29,03 |

TABLE 4. Waste Management in Schools

Based on Table. 2 it can be seen that all students can dispose of trash in its place. This can be seen by the total percentage gain of 100%. Thus, the awareness level of school residents to dispose of trash in its place is good. Students no longer throw garbage anywhere, for example when rushing into class because the bell has sounded, students still throw garbage in the space provided. Further, the scattered garbage is no longer seen being thrown away or left on the canteen table so that the cleanliness of the school is maintained. Maintaining cleanliness is the same as creating a healthy environment, so that it is far from a breeding ground for disease (Chan et al., 2019). However, there were still students who had not disposed of garbage properly. It was seen that there were 8 students who could not distinguish between organic and inorganic waste. Students think that disposing of garbage according to the type of waste is considered difficult to practice so that students are sometimes random in

Confrence Dates Published



disposing of their trash. Disposing of trash, cleaning the classroom every day, separating dry and wet waste, recycling unused items into crafts are examples of maintaining cleanliness in schools (Ismail, 2021). Therefore, as a good school citizen you must maintain cleanliness because it has many benefits in everyday life (Waskitoningtyas, Permatasari, & Prasetya, 2018).

Students can dispose of trash in its place, but they do not know the 3R program (reuse, reduce, recycle) because there are 13 students who do not understand what the 3R program (reuse, reduce, recycle) is implemented by the school. Despite the fact that the school has provided outreach regarding the 3R (reuse, reduce, recycle) program. However, students still need guidance from teachers or the school so that students know how to properly implement the 3R (reuse, recycle) process. Teachers need to teach students to use waste to make handicrafts or recycle waste into compost (Diyan Nurvika Kusuma Wardani, 2020; Saeful Anwar, 2008). With the existence of waste management, it really needs to be done to minimize the bad impact on the environment, one of which is through the 3R program (Arisona, 2018). Students have been able to dispose of their trash, but there are still some of them who don't bring eating and drinking utensils from home. This shows that there are still 9 students who do not bring drinks from their homes and choose to buy them in the canteen because it is considered more practical. Another reason students don't bring cutlery from home is because the school has provided lunch with cutlery.

The results obtained are in line with research conducted by Kristiawan, Maryanti, & Fitria (2019) who have conducted research at SMK Negeri 2 Muara Enim obtained results that students care about greening the environment and a sense of responsibility for keeping the school clean through the waste bank program. The rubbish collected is rubbish from each department and other rubbish around the school. Every student develops an honest attitude and awareness in loving the environment. Further research conducted by Simatupang, Veronika, & Irfandi (2021) At SDN Pondok Cina Depok, the results were that the entire community must play an active role in dealing with waste. One way is to get used to sorting waste and practicing the 3R program (reuse, reduce, recycle). Waste sorting practices can be improved by separating container motifs based on waste type. Reuse is to reuse an item without processing it. Reduce is a reduction related to everyday life. Recycle is recycling or the process of converting waste into new products that are more useful (Arisona, 2018). The cultivation of this behavior should be ingrained in primary school kids from a young age. In order to facilitate the early adoption of trash selection practices and promote the widespread implementation of garbage sorting within the community, it is proposed to use elementary school students as agents of change.

The incorporation of environmental education has been implemented throughout all academic disciplines within the school curriculum. When discussing the concept of circular school subjects, it is most applicable to topics within the realm of Natural Sciences, namely those falling under the category of IPA (Integrated Science, Physics, and Astronomy). Due to the inclusion of these subjects in the curriculum, students will have the opportunity to develop a deeper connection with the natural world and acquire skills in using media derived from nature. Among these disciplines, the circular school method is particularly conducive to sustainability. In the sixth-grade curriculum, the circular school incorporates the topic of Plant Propagation within the subject of Natural Sciences. Students are tasked with the responsibility of cultivating plants in the shape of onions, namely shallots. Based on the results of observations and interviews with 22 teachers and students, data was obtained regarding the integration of environmentally caring character education with Natural Sciences (IPA) subjects which can be seen in Table 3.

| No | Description | F | % (Yes) | F | % (NO) |
|----|--|----|---------|---|--------|
| 1 | Maintain cleanliness in class | 30 | 96,78 | 1 | 3,22 |
| 2 | Planting plants as a learning medium | 31 | 100 | 0 | 0 |
| 3 | Caring for plants | 25 | 80,65 | 6 | 19,35 |
| 4 | Water plants | 22 | 70,97 | 9 | 29,03 |
| 5 | Check the plant itself is still alive / dead | 26 | 83,88 | 5 | 16,12 |

TABLE 5. Integrating Environmental Care Character with Science Learning

According to the data shown in Table 3, it is evident that the majority of students have upheld cleanliness standards within the classroom environment. However, a small proportion, namely 3.22% of students, have not adhered to the cleaning guidelines. The presence of neighboring litter continues to elicit apathy among some pupils. In contemporary educational settings, students are given the opportunity to use nature as a pedagogical tool within their academic pursuits. Environmental education is often seen as an interdisciplinary approach within primary schools, whereby it is taught in alignment with the specific capacities of other courses (Rezkita & Wardani, 2018). The implementation of allowing students to engage in planting activities inside the school premises as an educational tool is hindered by practical limitations. For instance, the task of watering the plants

Confrence Dates Published



are not effectively carried out due to insufficient manpower, since only three out of six pupils are available to attend to this responsibility. This phenomenon occurs due to the limited comprehension of students about theoretical concepts, which then hinders their ability to effectively implement practical techniques related to plant care and irrigation. The presence of instructors is of utmost importance since they are required to possess a comprehensive understanding of the learning goals associated with each topic. This knowledge enables them to effectively include environmental education into their teaching practices without straying from the core curriculum. Furthermore, teachers serve as role models for their students, as the behavior and actions they exhibit greatly influence the behavior and actions of the children under their guidance (Azmussya'ni & MZ, 2022). For example, trash, floods, air pollution, global warming, forest destruction and abrasion are examples of environmental problems that often occur (Pratiwi, Tisngati, & Erviana, 2021).

Students can plant plants, but students cannot distinguish whether the plants they have planted are still alive or dead. This shows that as many as 5 students could only plant without paying attention to their respective plants that had been planted in the school yard. This of course will create new problems for teachers. By integrating character education with the academic curriculum contained in science learning, it is able to help students achieve success (Pertiwi, Suchyadi, Sumardi, & Handayani, 2019; Samani & Hariyanto, 2012). The cultivation of environmental consciousness yields an outcome in the shape of a heightened regard for flora, serving as a sign of the development of an empathetic disposition towards the environment that needs to be instilled in pupils from a young age. The purpose of this initiative is to cultivate kids' knowledge and foster a connection with the flora in their immediate environment. The establishment of a feeling of belonging is crucial as it fosters discipline among students, encouraging them to maintain and nurture their sense of belonging. Consequently, the cessation of environmental degradation is anticipated in forthcoming times (Handayani, Rahmawati, Prastiwi, Supriyanto, & Widyasari, 2021).

In internalizing the value of caring for the environment in students through a direct learning process, teachers immediately practice and provide explanations regarding the attitudes that must be taken towards the environment. Apart from that, the teacher also writes down the expected character values in the learning implementation plan, one of these values is the character of caring for the environment (Triasih, 2018). In line with research conducted by Narut & Nardi (2019) in Ruteng City Elementary School regarding Environmental Care Attitudes in Class VI Students, it founds that this traditional approach did not give them the opportunity to develop their attitudes, such as environmental management. If students are taught responsibility for the environment through effective teaching techniques, they are able to internalize it. The aim of environmental education is to inspire students to care about nature and the surrounding environment (Zuchdi, 2011). Fostering an attitude of caring for the environment can be done by inviting children to dispose of waste according to its type, caring for plants, keeping the classrooms and buildings clean, and other activities (Yunansah & Herlambang, 2017).

The discussion above is also related to the school culture in SDIT Muhammadiyah Al-Kautsar. This school culture is related to the context of teachers getting used to providing examples so that students are able to develop character and habits of caring for the environment. School culture must be instilled from an early age so that it sticks with students. An environmentally friendly school culture is implemented through four components. The four components are making ecologically responsible policies, implementing an environmentally based curriculum, integrating the community in environmental activities, and managing environmental resources (Desfandi, Maryani, & Disman, 2019). The school culture has been implemented optimally, starting from throwing away rubbish, watering plants, and doing community service. In carrying out these habits, students carry them out consciously and of their own accord without any coercion from the teacher or the school. However, there are still students who are indifferent to the cleanliness of their surroundings. Thus, character education that cares about the environment has an important role in fostering school culture (Fatmah, 2018; Zamroni & Rahardjo, 2015).

The implementation of environmental care character education via a circular school model is influenced by several elements, both supportive and hindering in nature. Supporting factors include any elements that contribute to the successful execution of activities or initiatives. Inhibiting factors refer to any elements that provide obstacles during the implementation of an activity or program (Pangestika, Malik, Shofwan, & Siswanto, 2021). In order to facilitate the seamless development of an ecologically conscious school culture. Hence, the essential elements include sufficient infrastructure and human capital, with collaborative efforts from many stakeholders capable of fostering the school community's motivation (Pelita & Widodo, 2020). The challenges experienced were mostly attributed to student-related factors and an unsupportive learning environment. Additionally, there were deficiencies in the monitoring and assessment processes, as well as limitations in educator capacity and inadequate allocation of time. The responsibilities of teachers have become more demanding due to the additional challenges of effectively managing kids and the insufficient awareness of school staff towards the surrounding environment.



Educators are required to possess the capacity to develop dynamic pedagogical strategies and methodologies that actively engage students in environmentally-focused learning experiences (Wardani, 2020).

Monitoring the evaluation of the achievement of integrating environmentally caring character education through circural schools will be carried out by the chief executive by monitoring every week. To monitor the success of management, the school will document the environmental conditions at the school in the form of notes and photos. Documentation will continue to be carried out to monitor developments in biodiversity conservation in schools as well as the integration of environmentally caring character education through circural schools. Evaluation monitoring will continue to be carried out in order to minimize the obstacles faced by school residents in the process of integrating environmentally caring character education through circural schools. For schools, implementing character education for students is very important because it is not only about fulfilling the obligations and responsibilities of carrying out the mandated academic curriculum. However, to balance students' knowledge by instilling character values. One effort to form children's character values holistically, namely by developing them optimally in terms of children's physical, emotional, social, artistic, creative and intellectual aspects (Beachum, McCray, Yawn, & Obiakor, 2015). Students are expected to be able to use their knowledge for good by having certain character values (Murniyetti, Engkizar, & Anwar, 2016; Muslich, 2014).

In connection with the above research results, schools are one of the many strategies that are quite effective in advancing and at the same time succeeding the national character education agenda, one of which is character education that cares about the environment. Research result from Saputro & S. (2015); Thambusamy & Elier (2013) argue that character education in schools needs to be carried out as effectively as possible and supported by schools through assistance from various activities. With the existence of character education, it is hoped that it will be able to overcome the character crisis that arises in global society and be able to develop as well as possible the abilities and mindset and behavior of students based on their role in religious, social and state life. Character consists of policies that function as rules for behavior. (Lickona, 2006; Walker, Roberts, & Kristjánsson, 2013).

CONCLUSION

Based on the explanation above, it can be concluded that character education that cares about the environment through circular schools is an approach that is oriented towards efforts to integrate character education more deeply in teaching students environmental care character values. The circular school approach is considered effective in integrating character education that cares about the environment and also its implementation has gone well. However, this approach still needs to be developed further and always carry out further monitoring and evaluation so that it truly produces students who have the character of caring about the environment.

REFERENCES

- A, M. (2014). Implementasi Pendekatan Saintifik, Penanaman Karakter Dan Konservasi Pada Pembelajaran Materi Pertumbuhan. Jurnal Pendidikan IPA Indonesia, 3(1), 28–36. Retrieved from http://journal.unnes.ac.id/nju/index.php/jpii%0ALITERASI
- Annisa, M. N., Wiliah, A., & Rahmawati, N. (2020). Pentingnya Pendidikan Karakter pada Anak Sekolah Dasar di Zaman Serba Digital. Jurnal Pendidikan Dan Sains, 2(1), 35–48. Retrieved from https://ejournal.stitpn.ac.id/index.php/bintang
- Ardoin, N. M., & Bowers, A. W. (2020). Early Childhood Environmental Education: A Systematic Review of the Research Literature. Educational Research Review, 31(November 2019), 100353. https://doi.org/10.1016/j.edurev.2020.100353
- 4. Arisona, R. D. (2018). Pengelolaan Sampah 3R (Reduce, Reuse, Recycle) Pada Pembelajaran Ips Untuk Menumbuhkan Karakter Peduli Lingkungan. Al Ulya: Jurnal Pendidikan Islam, 3(1), 39–51.
- 5. Ariyani, Y. D., & Wangid, M. N. (2016). The Development of Integrated-Thematic Teaching Materials Based on Characters of Environmental Care and Responsibility. Jurnal Pendidikan Karakter, 6(1), 116–129.
- Asrial, Syahrial, Kurniawan, D. A., Alirmansyah, Sholeh, M., & Zulkhi, M. D. (2022). The Influence of Application of Local-wisdom-based Modules toward Peace-loving Characters of Elementary School Students. IJOLAE: Indonesian Journal on Learning and Advanced Education, 4(2), 157–170. https://doi.org/10.23917/ijolae.v4i2.17068
- Azmussya'ni, & MZ, D. S. (2022). Media Pembelajaran Bahasa Berbasis Sampah Organik Sebagai Pengenalan Ecoliteracy Siswa Sekolah Dasar. SeBaSa: Jurnal Pendidikan Bahasa Dan Sastra Indonesia, 5(2), 333–344.
- 8. Barnosky, A. D., & Hadly, E. A. (2015). Tipping Point for Planet Earth: How Close Are We to the Edge? London Bridge Street: William Collins Books.



- 9. Beachum, F. D., McCray, C. R., Yawn, C. D., & Obiakor, F. E. (2015). Support and Importance of Character Education: Pre-Service Teacher Perceptions. Journal of Education and Practice, 11(3), 34–42.
- Birhan, W., Shiferaw, G., Amsalu, A., Tamiru, M., & Tiruye, H. (2021). Exploring the Context of Teaching Character Education to Children in Preprimary and Primary Schools. Social Sciences & Humanities Open, 4(1), 100171. https://doi.org/10.1016/j.ssaho.2021.100171
- 11. Bogdan, R. C., & Biklen, S. K. (1998). Qualitative Research for Education. Boston: Allyn and Bacon.
- 12. Burhan Bungin. (2010). Metode Penelitian Kualitatif. Jakarta: Rajawali Pers.
- Chan, F., Rimba Kurniawan, A., Oktavia, A., Citra Dewi, L., Sari, A., Putri Khairadi, A., & Piolita, S. (2019). Gerakan Peduli Lingkungan Di Sekolah Dasar. Adi Widya: Jurnal Pendidikan Dasar, 4(2), 190. https://doi.org/10.25078/aw.v4i2.1126
- Darmastuti, S., Cahyani, I. P., & Ali, S. (2020). Pendekatan Circular Economy Dalam Pengelolaan Sampah Plastik di Karang Taruna Desa Baros, Kecamatan Baros, Kabupaten Serang. Indonesian Journal of Society Engagement, 1(2), 1–18. Retrieved from http://www.jurnal.lkd-pm.com/index.php/IJSE/article/view/13
- Darnetti, Arnayulis, Nefri, J., & Elita, N. (2021). Pengelolaan Sampah Untuk Meningkatkan Nilai Guna Dan Pendidikan Karakter Siswa SD Muhammadiyah Sarilamak Kecamatan Harau Kabupaten Lima Puluh Kota. Jurnal Karya Abdi Masyarakat, 4(3), 555–561. https://doi.org/10.22437/jkam.v4i3.11576
- 16. Desfandi, M., Maryani, E., & Disman. (2019). Implementation of Adiwiyata Program in the Effort to Create Environmental Cultured School in Banda Aceh. Sumatra Journal of Disaster, Geography and Geography Education, 3(2), 1–8. Retrieved from http://sjdgge.ppj.unp.ac.id/index.php/Sjdgge/article/view/205
- Diyan Nurvika Kusuma Wardani. (2020). Analisis Implementasi Program Adiwiyata dalam Membangun Karakter Peduli Lingkungan. Southeast Asian Journal of Islamic Education Management, 1(1), 60–73. https://doi.org/10.21154/sajiem.v1i1.6
- 18. Duranti, A. (1997). Linguistic Anthropology. California: Cambridge University Press.
- 19. Efendi, N., Barkara, R. S., & Fitria, Y. (2019). Implementasi Karakter Peduli Lingkungan di SDN 13 Lolong Belanti Padang. Jurnal Pendidikan Ilmu Sosial, 29(2), 155–165.
- 20. Environment, U. (2019). In UN Environment (Ed.), Global Environment Outlook GEO-6: Healthy Planet, Healthy People (pp. lii-V). Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108627146.001
- Fahrian, N., Suwerda, B., & Husein, A. (2018). Model Tempat Sampah Lukis dan Bersuara "Schabi" terhadap Pengetahuan dan Ketepatan Memilah Sampah pada Siswa Kelas 5 Sekolah Dasar Di Banyuraden, Gamping, Sleman. Jurnal Kesehatan Lingkungan, 9(4), 178–186. Retrieved from http://ejournal.poltekkesjogja.ac.id/index.php/Sanitasi/article/view/771
- 22. Fatmah. (2018). Implementasi Budaya Sekolah Dalam Upaya Pembangunan Pendidikan Karakter Peduli Lingkungan. JMKSP (Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan), 3(2). https://doi.org/10.31851/jmksp.v3i2.1865
- 23. Gusti, A., Isyandi, B., Bahri, S., & Afandi, D. (2015). Hubungan Pengetahuan, Sikap dan Intensi Perilaku Pengelolaan Sampah Berkelanjutan Pada Siswa Sekolah Dasar di Kota Padang. Dinamika Lingkungan Indonesia, 2(2), 100–107. https://doi.org/10.31258/dli.2.2.p.100-107
- 24. Hallett, R. E., & Barber, K. (2014). Ethnographic Research in a Cyber Era. Journal of Contemporary Ethnography, 43(3), 306–330. https://doi.org/10.1177/0891241613497749
- Handayani, M. D., Rahmawati, L. E., Prastiwi, Y., Supriyanto, E., & Widyasari, C. (2021). Analyzing The Use of The Year Four, Theme Three Student Book of the 2013 Curriculum to Build Environmental Awareness. Profesi Pendidikan Dasar, 8(1), 48–62. https://doi.org/10.23917/ppd.v8i1.11658
- Hansen, & Yuliawati, R. (2019). Pendidikan Kesehatan Pengelolaan Sampah Sejak Usia Dini di SDN 015 Samarinda Ulu. E-Dimas: Jurnal Pengabdian Kepada Masyarakat, 10(2), 104–108. https://doi.org/10.26877/e-dimas.v10i2.3316
- 27. Hasnidar, S. (2019). Pendidikan Estetika Dan Karakter Peduli Lingkungan Sekolah. Jurnal Serambi Ilmu, 20(1), 97–119. https://doi.org/10.32672/si.v20i1.997
- 28. Hasnunidah, N. (2017). Metodologi Penelitian Pendidikan. Yogyakarta: Media Akademi.
- Hazam, B., Saam, Z., & Tarumun, S. (2020). Implementasi Program Reduce, Reuse. Recycle (3R) Sampah di Lingkungan Sekolah Menengah Atas Kecamatan Pangkalan Kerinci. Jurnal Ilmu Lingkungan, 14(1), 142– 153.
- 30. Heidari, M. H., Nowrozi, R. A., & Ahmadpoor, P. (2016). Recognition and Applying Character Education Approaches in Schools. Review of European Studies, 8(3), 125–132. https://doi.org/10.5539/res.v8n3p125
- Huda, M. K., & Rajagukguk, S. (2020). Penguatan Karakter Peduli Lingkungan di Pesantren Modern Al Barokan Melalui Pengelolaan Sampah dan Pemanfaatan Biopori. BEST JOURNAL: Biology Education Science & Technology, 3(2), 198–204.



- 32. Idrus, A., & Novia, Y. (2018). Pelaksanaan Nilai Peduli Lingkungan Di Sekolah Dasar. Jurnal Gentala Pendidikan Dasar, 3(2), 203–219. https://doi.org/10.22437/gentala.v3i2.6757
- 33. Ismail, M. J. (2021). Pendidikan Karakter Peduli Lingkungan dan Menjaga Kebersihan di Sekolah. 4(1).
- Kristiawan, M., Maryanti, N., & Fitria, H. (2019). Membangun Karakter Peserta Didik melalui Green School di Smk Negeri 2 Muara Enim. JMKSP: Jurnal Manajemen, Kepemimpinan, Dan Supervisi Pendidikan), 4(2), 210–217.
- 35. Lexy J, M. (2012). Metodologi Penelitian Kualitatif. Bandung: PT Remaja Rosdakarya Offset.
- 36. Lickona, T. (2006). Eleven Principles of Effective Character Education. Journal of Moral Education, 25(1), 93–100.
- 37. Mahyudin, R. P. (2014). Strategi Pengelolaan Sampah Berkelanjutan. EnviroScienteae, 10, 34-40.
- 38. Margono. (2010). Metodologi Penelitian Pendidikan. Jakarta: Rineka Cipta.
- Marjohan, & Afniyanti, R. (2018). Penerapan Nilai Pendidikan Karakter Peduli Lingkungan Di Kelas Tinggi Sekolah Dasar. Jurnal Gentala Pendidikan Dasar, 3(I), 111–126. https://doi.org/https://doi.org/10.22437/gentala.v3i1.6767
- 40. Marniati, Zulyani, I., Putri, E. S., Khairunnas, Muliadi, T., Ayunda, H. M., & Jasmi. (2021). Upaya pengendalian sampah plastik di lingkungan sekolah dasar. Indonesian Journal Of Community Service, 1(1), 111–114. Retrieved from http://ijocs.rcipublisher.org/index.php/ijocs/article/view/34
- Mastrángelo, M. E., Pérez-Harguindeguy, N., Enrico, L., Bennett, E., Lavorel, S., Cumming, G. S., ... Zoeller, K. (2019). Key knowledge gaps to achieve global sustainability goals. Nature Sustainability, 2(12), 1115–1121. https://doi.org/10.1038/s41893-019-0412-1
- 42. Maunah, B. (2016). Implementasi Pendidikan Karakter Dalam Pembentukan Kepribadian Holistik Siswa. Jurnal Pendidikan Karakter, 5(1), 90–101. https://doi.org/10.21831/jpk.v0i1.8615
- 43. Miles, M. B., & Huberman, A. M. (1994). Qualitative Data Analysis: A Methods Sourcebook (Second). Thousand Oaks: CA: Sage Publications.
- 44. Monks, F. J., Knoers, A. M. P., & Hadinoto, S. R. (2002). Psikologi Perkembangan. Yogyakarta: Gadja Mada University Press.
- Moriguchi, Y. (2007). Material Flow Indicators to Measure Progress Toward a Sound Material-cycle Society. Journal of Material Cycles and Waste Management, 9(2), 112–120. https://doi.org/10.1007/s10163-007-0182-0
- 46. Munnawir, A. W. (1997). Kamus Al-Munawir: Arab-Indonesia Terlengkap. Surabaya: Pustaka Progresif.
- 47. Murniyetti, Engkizar, & Anwar, F. (2016). Patterns of Character Education of Primary School Students. Jurnal Pendidikan Karakter, 2(1), 156–166. Retrieved from https://journal.uny.ac.id/index.php/jpka/article/download/12045/8608
- 48. Muslich, M. (2014). Pendidikan Karakter: Menjawab Tantangan Krisis Multidimensional. Jakarta: Bumi Aksara.
- 49. Narut, Y. F., & Nardi, M. (2019). Analisis Sikap Peduli Lingkungan Pada Siswa Kelas VI Sekolah Dasar di Kota Ruteng. Scholaria: Jurnal Pendidikan Dan Kebudayaan, 9(3), 259–266.
- 50. Neolaka, A. (2008). Kesadaran Lingkungan. Jakarta: Rineka Cipta.
- Nugroho, A., Fatonah, A., Wardana, A. P., Rahmawati, O. E., Astari, N., Ermayanti, G., ... Fachrurozzi, M. R. (2020). Menumbuhkembangkan Kepedulian Siswa Terhadap Lingkungan Melalui Kegiatan Penghijauan di MIM Pakang Andong, Boyolali. Buletin KKN Pendidikan, 2(1), 8–13. https://doi.org/10.23917/bkkndik.v2i1.10786
- 52. Nuzulia, S., Sukamto, & Purnomo, A. (2019). Implementasi Program Adiwiyata Mandiri dalam Menanamkan Karakter Peduli Lingkungan. SOSIO DIDAKTIKA: Social Science Education Journal, 6(2), 155–164. Retrieved from http://journal.uinjkt.ac.id/index.php/SOSIO-FITK
- Pangestika, N., Malik, A., Shofwan, I., & Siswanto, Y. (2021). Implementation of Character Education at Paud Sekolah Alam Ar Ridho Semarang. JournalNX- A Multidisciplinary Peer Reviewed Journal, 7(3), 191– 204. Retrieved from https://media.neliti.com/media/publications/343096-implementation-of-charactereducation-at-b31f68e4.pdf
- Pelita, A. C., & Widodo, H. (2020). Evaluasi Program Sekolah Adiwiyata di Sekolah Dasar Muhammadiyah Bantul Kota. Sekolah Dasar: Kajian Teori Dan Praktik Pendidikan, 29(2), 145–157. https://doi.org/10.17977/um009v29i22020p145
- Pertiwi, R., Suchyadi, Y., Sumardi, & Handayani, R. (2019). Implementasi Program Pendidikan Karakter Di Sekolah Dasar Negeri Lawanggintung 01 Kota Bogor. JPPGuseda | Jurnal Pendidikan & Pengajaran Guru Sekolah Dasar, 2(1), 41–46. https://doi.org/10.33751/jppguseda.v2i1.994
- Ponisari, P., Syam, M. I., & Susena, P. R. (2019). Penanggulangan Dan Pengelolaan Sampah Di Lingkungan Sekolah. Abdimas: Papua Journal of Community Service, 1(1), 13–20. https://doi.org/10.33506/pjcs.v1i1.346



- 57. Prabandari, A. S. (2020). Implementasi Pendidikan Karakter Di Sekolah Dasar. Jurnal Pendidikan Konseling, 2(1). https://doi.org/10.32585/jdb.v2i1.182
- 58. Pratiwi, D. M., Tisngati, U., & Erviana, L. (2021). Pemahaman Siswa SD tentang Sikap Peduli Lingkungan melalui Program Adiwiyata (Vol. 6).
- 59. Prihastari, E. B., & Widyaningrum, R. (2018). Pengembangan "Mas Novel" Berbasis Etnomatsains Untuk Menanamkan Sikap Peduli Lingkungan Siswa Sekolah Dasar. Profesi Pendidikan Dasar, 1(2), 167. https://doi.org/10.23917/ppd.v1i2.6944
- 60. Purnami, W. (2021). Pengelolaan Sampah di Lingkungan Sekolah untuk Meningkatkan Kesadaran Ekologi Siswa. INKUIRI: Jurnal Pendidikan IPA, 9(2), 119. https://doi.org/10.20961/inkuiri.v9i2.50083
- 61. Purwaningrum, P. (2016). Upaya Mengurangi Timbulan Sampah Plastik Di Lingkungan. Indonesian Journal Of Urban And Environmental Technology, 8(2), 141–147. https://doi.org/10.25105/URBANENVIROTECH.V8I2.1421
- 62. Puspitasari, R. L., Sugoro, I., Elfidasari, D., & Perdana, A. T. (2018). Pengabdian Kepada Masyarakat Pelatihan Daur Ulang Sampah pada Siswa Sekolah Dasar di SDN 03 Cempaka Putih, Ciputat, Tangerang Selatan. JURNAL AI-AZHAR INDONESIA SERI SAINS DAN TEKNOLOGI, 4(2), 91–94. https://doi.org/10.36722/sst.v4i2.269
- 63. Rezkita, S., & Wardani, K. (2018). Pengintegrasian Pendidikan Lingkungan Hidup Membentuk Karakter Peduli Lingkungan di Sekolah Dasar. Trihayu: Jurnal Pendidikan Ke-SD-An, 4(2), 327–331.
- 64. Rubiyanto. (2013). Penelitian Pendidikan Untuk Mahapeserta didik Pendidikan Guru Sekolah Dasar. Surakarta: Universitas Muhammadiyah Surakarta Press.
- 65. Saeful Anwar, N. (2008). Apa yang akan Kau Lakukan Terhadap Sampah? Bandung: PT Elisa Surya Dwitama.
- 66. Samani, M., & Hariyanto. (2012). Konsep dan Model Pendidikan Karakter (Kindle Edi). Bandung: PT Remaja Rosda Karya.
- 67. Saputra, H. J., & Nur Isti Faizah. (2017). Pengembangan Bahan Ajar untuk Menumbuhkan Nilai Karakter Peduli Lingkungan pada Siswa Kelas IV Sekolah Dasar. Profesi Pendidikan Dasar, 4(1), 62–74.
- Saputro, H. B., & S., S. (2015). Pengembangan Media Komik Berbasis Pendidikan Karakter pada Pembelajaran Tematik-Integratif Kelas IV SD. Jurnal Prima Edukasia, 3(1). https://doi.org/10.21831/jpe.v3i1.4065
- 69. Schröder, P., Anantharaman, M., Anggraeni, K., & Foxon, T. J. (2019). The Circular Economy and the Global South : Sustainable Lifestyles and Green Industrial Development (1st Editio). London: Routledge. https://doi.org/https://doi.org/10.4324/9780429434006
- 70. Simatupang, M. M., Veronika, E., & Irfandi, A. (2021). Edukasi Pengelolaan Sampah : Pemilahan Sampah dan 3R di SDN Pondok Cina Depok. Prosiding Hasil Pengabdian Masyarakat, 34–38. Retrieved from http://journal.undiknas.ac.id/index.php/partahttp://journal.undiknas.ac.id/index.php/parta.
- Siskayanti, J., & Chastanti, I. (2022). Analisis Karakter Peduli Lingkungan pada Siswa Sekolah Dasar. Jurnal Basicedu, 6(2), 1508–1516.
- 72. Spradley, J. (1980). Participant Observation. New York: Holt, Rinehart and Winston.
- 73. Stia Rini, A., Putu Gde Sukaatmadja, I., & Gst Ayu Kt Giantari, I. (2017). Pengaruh Pengetahuan Lingkungan Dan Kepedulian Lingkungan Terhadap Sikap Dan Niat Beli Produk Hijau "the Body Shop" Di Kota Denpasar. Bisnis Universitas Udayana, 6(1), 137–166.
- 74. Sugiyono. (2014). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif Dan R&D. Bandung: Alfabeta.
- 75. Susanti, D., & Rusnandi, E. (2016). Simulasi Aplikatif Pembuatan Pupuk Organik Cair dan Kompos Pada BPLH Majalengka. Infotech Journal, 1(1), 5–15. https://doi.org/10.31949/inf.v1i1.28
- 76. Susanto, E. (2013). Pembelajaran Pendidikan Jasmani Berbasis Karakter Untuk Meningkatan Nilai-Nilai Afektif Di Sekolah Dasar. Jurnal Pendidikan Karakter, 4(3), 288–301. https://doi.org/10.21831/jpk.v0i3.2751
- 77. Thambusamy, R., & Elier, A. A. (2013). Shaping the Bamboo From the Shoot: Elementary Level Character Education in Malaysia. Journal Child-Hood Education, 89(6), 368–378.
- Triasih, S. (2018). Implementasi Pendidikan Karakter Peduli Lingkungan di Sekolah Dasar Negeri Nogopuro Sleman. Jurnal Pendidikan Guru Sekolah Dasar Edisi 38 Tahun Ke-7, 5(5), 3482–3489. Retrieved from https://jbasic.org/index.php/basicedu/article/view/1344
- 79. Wakhidah, K. (2014). Pengaruh Penanaman Nilai-Nilai Konservasi terhadap Karakter Peduli pada Lingkungan Anak Usia Dini. BELIA: Early Childhood Education Papers, 3(2).
- Walker, D. I., Roberts, M. P., & Kristjánsson, K. (2013). Towards a New Era of Character Education in Theory and in Practice. Journal Educational Review, 67(1), 79–96.



- 81. Waskitoningtyas, R. S., Permatasari, B. I., & Prasetya, K. H. (2018). Penyuluhan Kebersihan Diri Melalui Program Cuci Tangan Sebagai Bentuk Kesadaran Siswa Pada SD N 014 Balikpapan Barat. Jurnal Terapan Abdimas, 3(1), 44. https://doi.org/10.25273/jta.v3i1.2167
- Widiyatmoko, H., Purwaningrum, P., & P., F. P. A. (2016). Analisis Karakteristik Sampah Plastik di Permukiman Kecamatan Tebet dan Alternatif Pengolahannya. . . Indonesian Journal Of Urban And Environmental Technology, 7(1), 24–33. https://doi.org/https://doi.org/10.25105/urbanenvirotech.v7i1.713
- Wuryandani, W., Fathurrohman, & Ambarwati, U. (2016). Implementasi Pendidikan Karakter Kemandirian Di Muhammadiyah Boarding School. Jurnal Cakrawala Pendidikan, 35(2), 208–216. https://doi.org/10.21831/cp.v15i2.9882
- Yunansah, H., & Herlambang, Y. T. (2017). Pendidikan Berbasis Ekopedagogik Dalam Menumbuhkan Kesadaran Ekologis Dan Mengembangkan Karakter Siswa Sekolah Dasar. EduHumaniora | Jurnal Pendidikan Dasar Kampus Cibiru, 9(1), 27. https://doi.org/10.17509/eh.v9i1.6153
- 85. Zakiatunnia, A., Delfira Suecita, Safira, D. R., Haikal, M. A., Qonitan, F. D., Zahra, N. L., & Suryawan, I. W. K. (2021). Pengabdian Integritas : Jurnal Pengabdian. INTEGRITAS : Jurnal Pengabdian, 5(1), 1–11.
- 86. Zamroni, E., & Rahardjo, S. (2015). Manajemen Bimbingan Dan Konseling Berbasis Permendikbud Nomor 111 Tahun 2014. Jurnal Konseling Gusjigang, 1(1), 0–11. https://doi.org/10.24176/jkg.v1i1.256
- 87. Zuchdi, D. (2011). Pendidikan Karakter dalam Perspektif Teori dan Praktik. Yogyakarta: UNY Press.