

School Resonance with an Environmental Perspective

(An ecological-based preservation)

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Abstract

The focus of the research is to find the resonance of ecologically-based schools. This research focus can be broken down into a number of questions. 1. How is the development of environmental care and cultured policies; 2. The development of an environment-based curriculum; 3. The development of community-based environmental activities; 4. The development and management of supporting facilities for caring and environmentally cultured schools; 5. The school's quest for a higher award? The research method used is qualitative research. The subjects of time and research were school principals, chief executives of the Adiwiyata program, and teachers of environmental education. The research location is SMA N 2 Temanggung, Central Java. The research was carried out from July to November 2016. Semi-structured interviews and in-depth interviews were used to collect data with the sample's goal in mind. The data analysis techniques used are interpretation, deduction, induction, and in-depth analysis. Checking the validity of the data through the degree of trust, transferability, dependability, and certainty. The results of the study were: 1. the development of a caring and cultured environment policy covering the principal's policy in developing the vision of a caring and environmentally cultured school, developing environmental education learning through integrated learning with existing subjects; increasing the capacity of human resources in the field of environmental education; saving natural resources, creating a clean and healthy school environment; and allocating and using funds for activities related to environmental issues. 2. Development of an environment-based curriculum through the application of a monolithic curriculum 3. Development of community-based environmental activities in the form of participatory activities 4. Development and management of supporting facilities for caring and environmentally oriented schools by carrying out strategic efforts through developing supporting facilities and improving management quality, saving natural resources, improving the quality of healthy food services, and achieving independence from waste management systems. 5. The school's efforts to get a higher award by implementing creative, innovative, and sustainable strategies, and building an environmentally friendly culture and lifestyle for students, teachers, and employees

Keywords: [Environmental and Ecology-Based School]

INTRODUCTION

The creation of the universe with real order and balance through amazing systematics This order and balance will be maintained

until a certain period of time has been determined by Him (Natar, 2019). The order and balance of the universe and its contents were created to be able to meet the needs of

human life in all its variations (Efri Roziaty, dkk., 2017: 2). Humans from generation to generation enjoy nature in accordance with the periodization of scientific degrees they have. Such utilization, at a certain point, will cause damage to the natural environment. Even more devastating damage to nature and the environment is not caused by the aging process of nature itself, but is instead caused by the hands of those who always pretend to use it, which is actually exploiting it without caring about environmental damage (Ruslan, 2018). Environmental damage is caused because the existing value system views humans as separate from nature; humans act as conquerors, regulators, and superiors to nature, but human dominance over nature is not absolute because society has values that govern human interactions with their surroundings (Yusnidar et al., 2015).

Humans exploit nature in order to fulfill their needs (Zulfikar, 2018). Exploitation is a necessity to meet human needs that are continuously growing and becoming increasingly complex. The exploitation that is currently being carried out under the guise of utilizing natural resources to improve mankind's welfare is, in fact, destructive in quantity and quality, and exceeds the natural resource capability threshold. The reality that is seen and felt at this time is that humans use natural resources unwisely, so that the environment suffers ongoing damage (Wardhana, 2010: xiv). This should not have happened if humans were able to maintain the trinity of harmony, namely harmony with Allah SWT, fellow human beings, and nature and everything in it. If the harmony is maintained, this nation will undoubtedly be peaceful, peaceful, physically and mentally prosperous, thanks to a natural environment free of human-caused damage.

Excessive human behavior that exceeds the capacity of the environment and natural resources to fulfill causes continuous damage to natural resources (Hapsari, 2015). Human

behavior is stated specifically as an important element that influences the quality of natural resources that support human welfare itself (Jazuli, 2015). Human behavior, both individually and collectively, is predicted to determine the quality of nature. Variants determining human behavior include moral and cultural values, which include religious values that crystallize through education.

The educational process is expected to be able to increase one's capacity, both individually and collectively, to respond to very rapid environmental changes (Ngafifi, 2014). The rate of change in the quality of environmental functions is not balanced with the journey of forming one's character at school so that he has insight and care for the environment (Sihadi Darmo Wihardjo & Henita, 2021: 3). The voice points that are at the agency or institution above are not able to deliver the movement of the educational process that can create students who have insight and concern for the environment. The current development of science, information technology, and communication technology is not matched by the power of faith and piety, so that science, technology, and art, which are renowned for their high achievements, do not reflect friendly or caring behavior towards the environment.

Educational institutions, as the frontline in character building, are seen as capable of delivering students with insight and concern for the environment, with an orientation to balance faith and piety (Imtaq) with science, technology, and art (Science) (Illahi, 2020). This balance is able to call on students with personal responsibility to apply insightful behavior and care for the environment. The educational process is expected to increase a person's capacity, both individually and collectively, to respond to and change oneself to support a more environmentally friendly lifestyle as well as clear legislation, rules, and work procedures. Another perspective is reinforced by Rohadi

(2011: 6) that the conditions of science and technology that gave birth to industrialization have neglected the environment. Various environmental disasters that are becoming more common are caused by science and technology.

This view seems to deny the role of humans as the main perpetrators of environmental destruction. There are other variables that can damage the environment and natural resources. These two different views cannot be separated from each other, scientific and technological advances clearly have the opportunity to damage and reduce natural resources and the environment. Through the strengthening of the wheel of scientific and technological development, human behavior and lifestyle towards natural resources and the environment is no less powerful in increasing the damage to the environment and natural resources.

The development of science and technology is a necessity that cannot be stopped. Technological progress has shown great promise in improving human life quality in a variety of fields (Feri Noperman, 2020: 8). Technological ambivalence that occurs always accompanies the rate of use of the technology. Attitudes and behaviors that are responsible and care for the environment are a bargaining chip to reduce the negative impacts arising from advances in science and technology.

The rate of population growth in various parts of the world has become an interesting phenomenon for studying environmental damage that is difficult to contain. Increasing community needs have an impact on exploitative behavior toward natural resources (SDA). UUPH Chapter I, Article 1, Paragraph 9 states that natural resources are environmental elements consisting of biological and non-biological resources, which as a whole form an ecosystem unit (UUPH, 2009: 3). Of course, this trend has resulted in a rapid decline in the quantity and

quality of the environment and natural resources. TAs a result, human quality is a critical issue in efforts to preserve the environment's natural resources. Thus, everyone's right to a good and healthy environment as part of human rights is fulfilled. As in UUPH Chapter X, Part 1, Article 65, Paragraph (1) (UUPH, 2009: 44), everyone has the right to a good and healthy environment as part of their human rights.

UUPH chapter I, article 1 paragraph (1) states that the environment is a spatial unit with all objects, powers, circumstances, and living things, including humans and their behavior that affects nature itself, the continuity of life, and the welfare of humans and other living things (UUPH, 2009: 2). Adequate knowledge of the environment is needed by all levels of society to participate in efforts to save and preserve the environment. This is very crucial to do immediately. Maslikhah (2004: 26) has an initial belief that damage to the natural environment is caused by greedy human hands. This conviction eventually leads to education as a change in human behavior. In this area, the educational process is becoming more and more discussed by people to be able to overcome environmental problems. Thus, it cannot be denied that the educational process is increasingly becoming a trademark for making changes in thinking, behaving, and acting for humans as desired. The trademark is urgently needed to address people's concerns about environmental damage.

The Ministry of National Education (Kemendiknas) provides policies for primary and secondary education to provide environmental education (PLH) subject matter. Population and Environmental Education (PKLH) has been taught in elementary schools since 1975, and in junior and senior high schools since 1982, following a change in the KBK curriculum in

2004. The existence of KTSP and PKLH learning is not clearly indicated, and it is not managed systematically, resulting in a failure to achieve expected student learning outcomes such as students gaining understanding and facts about ecological systems in order to achieve awareness in respecting and appreciating the importance of the environment for humans, and vice versa. Now, the State Ministry of Environment (KNLH) is excited to provide policies regarding environmentally-based local content. KNLH, on February 19, 2004, together with the Ministry of National Education, the Ministry of Religion, and the Ministry of Home Affairs, established a policy on environmental education (PLH). This PLH policy is a basic policy that provides a direction for all stakeholders in the implementation and development of PLH in Indonesia. This PLH needs to be carried out immediately considering UUPLH number 32 of 2009 Chapter X Article 65 Paragraph (2), which states that everyone has the right to receive environmental education, access to information, participation, and justice in fulfilling the right to a good and healthy environment (UUPLH, 2009: 44). PLH is believed to be an effective and efficient solution in an effort to increase public knowledge and understanding of the preservation of environmental functions. UUPLH provides an opportunity for the community to play a role in protecting and managing the environment. UUPLH Chapter X, Article 65, Paragraph 4 explains that everyone has the right to play a role in environmental protection and management in accordance with statutory regulations (UUPLH, 2009: 44). In its implementation, both through formal, non-formal, and informal education policies, all parties are directed so that they can carry out PLH institutional development, improve the quality of human resources, develop facilities and infrastructure, increase efficiency in the

use of budgets, develop PLH materials, improve communication and information, empower community participation in the implementation and development, and develop PLH methods. This policy aspect needs to be developed so that it can become an efficient and effective driving tool for the progress of PLH. As a policy, if it is not implemented by primary and secondary education institutions, it will become a problem for the school itself.

Implementation in primary and secondary educational institutions through PLH local content material carried out in Indonesia so far has not had a significant effect on changes in people's awareness and behavior in taking actions that are beneficial to the environment and society. When the policy of developing schools that care and have an environmental culture reaches the leadership's desk, curriculum development is limited to lesson units and lesson plans. Participation activities are only at the normative level; facility and infrastructure development is merely a nomenclature. The nomenclature that serves as an implementation guide for carrying out follow-up cannot show the involvement of teachers, students, and school workers in synergy when carrying out PLH activities. PLH in educational institutions has not yielded satisfactory results thus far. Each implementing school cares about the environment by partially implementing PLH activities and measuring success performance based on their respective perspectives. These issues must be followed up on in their synergistic implementation in the field. In response to this and in order to increase knowledge and understanding of the environment among students and the community in the school environment, on June 3, 2005, a joint agreement was signed between the State Minister of Environment and the Minister of National Education. Realization and the agreement on February

21, 2006, have launched a school program with insight, care, and a cultural environment. The school program with environmental insight, care, and culture is proclaimed to encourage and shape schools in Indonesia so that they can participate in implementing the government's efforts towards environmental preservation and sustainable development for present and future generations.

The environmental-oriented, caring, and cultural school program aims to create good conditions for schools to become places of learning and awareness for school members (teachers, students, and other workers), which is manifested in the form of developing environmentally caring and cultural policies, developing environmentally based curricula, developing community-based environmental activities, and developing and managing school supporting facilities with an environmental perspective, care, and culture. As a school with insight, caring, and an environmental culture, how can resonance provide knowledge and behavior that are commensurate with the achievements it bears? It is an irony that SMA N 2 Temanggung is unable to develop policies that foster environmental culture, develop an environment-based curriculum, develop community-based environmental activities, or develop and manage ecologically-based supporting facilities. Based on these problems, the researcher wishes to obtain further information, find features, and offer solutions that can be offered to answer these problems in a study entitled Environmentally Friendly School Resonance (an Ecology-Based Preservation Effort). This research needs to be carried out immediately because the school program with environmental insight, care, and culture is a government program through the State Ministry for the Environment in collaboration with the Ministry of National Education that must be implemented. More

importantly, the findings of this study can be used to inspire students to become more knowledgeable and concerned about environmental issues, which are becoming increasingly important locally, regionally, nationally, and even internationally. The findings of this research are important to find the key points of success that are owned by SMA Negeri Temanggung, which will be used as "teachers" for other people or institutions who have a specific interest in environmental appreciation programs in educational institutions.

METHODOLOGY

The research method used is qualitative research. Qualitative research is a multi-method approach to each subject matter in a natural setting that seeks to understand and interpret phenomena in terms of the meanings people assign to them. Qualitative research is interested in making an in-depth understanding of a problem rather than looking at the problem for the sake of generalization (Warul Walidin et al., 2015: 1).

Data analysis activities include the preparation of analytical data obtained through data exploration in the field. Narrative data will be analyzed using a qualitative approach in which the collected data is coded, organized, and reduced into themes. The data analysis techniques used are interpretation, deduction, induction, and in-depth analysis (Febri Endra, 2017: 6–7). Researchers are attempting to generalize data regarding the development of environmental care and culture policies, the development of an environment-based curriculum, the development of community-based environmental activities, the development and management of supporting facilities for caring and environmentally cultured schools, and the efforts made for those obtained through interviews and observations. In

addition, it is also used to find out the efforts that will be made by the Adiwiyata school to obtain the second-year Adiwiyata award and/or Adiwiyata Kencana or even awards at the international level.

In-depth analysis, which examines problems on a case-by-case basis by conducting case-by-case analysis on the development of environmentally caring and cultural policies, the development of an environment-based curriculum, the development of community-based environmental activities, and the development and management of supporting facilities for caring and environmentally cultural schools.

RESULT AND DISCUSSION

Development of Environmental Care and Cultural Policies

Joint Agreement on Environmental Education between the State Minister for the Environment and the Minister of National Education, number 03/MENLH/02/2010. Article 1 of this agreement aims to: foster and develop knowledge, values, attitudes, behaviors, and insights; foster concern for the environment among students and the community; and improve the quality of human resources as implementers of sustainable development and the preservation of environmental functions. Article 2. The scope of this joint agreement includes: The development and implementation of education for sustainable development (ESD), including environmental education, which is carried out in all lines, levels, and types of education, is a vehicle or means of creating changes in mindset, attitudes, and environmentally cultivated human behavior. Coordination and synergy are essential in the preparation of short, medium, and long-term environmental education programs as part of ESD.

The development of environmental policies includes the policy of the Adiwiyata school principal in formulating the philosophy of

vision, the mission of a school that cares and is cultured in the environment, policies in developing environmental learning materials, policies on increasing the capacity of human resources (HR), policies on saving natural resources, policies for allocating funds for environmental activities, and other policies that encourage the realization of environmentally caring and cultured schools. This advancement is aimed at achieving the status of an environmentally friendly, caring school.

Environment-Based Curriculum Development

All levels of society require adequate environmental knowledge in order to work together to save and preserve the environment. This is very crucial and should be carried out together and developed immediately. The development of environment-based education needs to be addressed. Environmental education, according to Judi and Wood in Murti Laksono (2009: 9), has two approaches: the integration approach and the monolithic approach. The Integration Approach is a method that integrates material content and the process of providing material related to nature conservation and natural disaster mitigation into the applicable curriculum. Material on certain subjects is given in the learning process by combining existing material in other subject matter. Natural science material can be developed with social science concepts. Implementing an integrated approach requires educators to consider various sources when developing a lesson plan. Educators analyze and collect appropriate material to be developed into learning materials that are integrated with material about nature, humans, and social interaction.

A monolithic approach assumes that each subject has its own purpose. This approach can be implemented in two ways: first, by developing scientific disciplines by way of

environmental mitigation education, and second, by developing an education package in a particular subject; the implementation of PLH can also be implemented in a subject called local content in accordance with the characteristics of the area to be developed for students.

The development of an environment-based curriculum is marked by the identification of environmental issues around SMA Negeri 2 Temanggung that can support the implementation of the strategic plan of the technical implementation unit at school. development of an integrated environment-based curriculum in science and social studies subjects. In science subjects, there is material that contains matters relating to living and non-living things. Natural science material that provides information on pollution and environmental damage is developed into human-environment interaction material. The implementation of a monolithic approach is deemed necessary to be applied in learning theory with practice in order to gain adequate experience on developing environmental issues. The development of environmental learning materials is defined by the local content (mulok) of environmental education. Environmental Education contains materials on basic environmental topics, local issues, and national and international issues. Basic materials on the environment include material on biodiversity, environmental destruction and pollution, waste management, the ionosphere, the atmosphere, environmental preservation, and natural resources. Local issues regarding the environment in Temanggung, such as domestic waste management, air pollution, erosion on Mount Sumbing and Sindoro, deforestation, sand mining on the slopes of Mount Sumbing and Sindoro, forest fires in the Mount Sumbing area, which has an area of 50 hectares, biodiversity in Temanggung, such as cemani chicken and mangrove forest

ecosystems, and monitoring of local natural resources and local elementary schools national and international issues such as global warming, flood management, mangrove forest ecosystems, air, river, and sea pollution, seawater intrusion, coastal abrasion, forest fires, illegal logging, waste management, and others.

Development of Community-Based Environmental Activities

Development of community-based environmental activities by revitalizing the role of parents and the surrounding community in developing environmental protection and management. The cooperation provided both inside and outside of Temanggung State High School provides support for the realization of an environmentally sound school. Giving awards to individuals, institutions, and communities who care for services and/or achievements in the field of environmental protection and management carried out by SMA Negeri 2 Temanggung in order to gain increased capacity, commitment, community participation, education, and staff education to play an active role in maintaining and preserving environmental functions. The values that are instilled in schools for students get adequate recognition so that they will be maintained wherever students are. Based on Article 65, paragraph (1), everyone has the right to a good and healthy environment as part of their human rights. Article 65, paragraph (2), states that everyone has the right to environmental education, access to information, participation, and justice in fulfilling the right to a good and healthy environment. According to Article 65, paragraph 4, everyone has the right to play a role in protecting and managing the environment in accordance with statutory regulations. With regard to the obligations under Article 67, everyone is obliged to maintain the preservation of environmental functions and

control environmental pollution and/or damage. With regard to prohibitions, those according to the Law on the Protection and Management of the Environment within the scope of Adiwiyata schools, among others, are contained in Article 69, paragraph (1), which states that everyone is prohibited from: Doing acts that result in environmental pollution and/or damage; disposing of waste to environmental media; carrying out land clearing by burning; providing false, misleading, omitting, or damaging information; or providing untrue information. With regard to community participation, pursuant to Article 70 Paragraph (1), the community has the same and widest possible rights and opportunities to play an active role in environmental protection and management. Paragraph (2) states that the role of the community can be in the form of social supervision, including giving suggestions, opinions, suggestions, objections, complaints, and/or submitting information and/or reports. According to paragraph (3), the community's role is to raise awareness about environmental protection and management. Increase independence, community empowerment, and partnerships. Fostering the capacity and pioneering of the community Fostering community responsiveness to carry out social supervision Develop and maintain local culture and wisdom in the context of preserving environmental functions.

Development and Management of School Support Facilities with Insight, Care, and Environmental Culture

The development and management of school support facilities are obliged to provide facilities and infrastructure to support the implementation of environmental education by improving the quality of environmental management. Environmental protection and management are systematic and integrated efforts made to preserve environmental functions and prevent environmental

pollution and/or damage, which include planning, utilization, control, maintenance, supervision, and law enforcement. development of facilities and infrastructure in order to carry out management and protection of the environment in SMA Negeri 2 Temanggung.

SMA Negeri 2 Temanggung Central Java has made efforts to protect, preserve, provide rights, obligations, and leave prohibitions, as well as participate in environmental conservation and protection activities in existing ecosystems and provide opportunities for the community to provide participation in caring, protecting, and preserving through activities to provide information and action activities initiated in the four components, such as the development of environmental care and cultured policies, the development of an environment-based curriculum, the development of community-based environmental activities, and the development and management of supporting facilities for caring and environmentally cultured schools.

Efficiency policy on saving natural resources in the form of drafting rules that are posted in every room and writing slogans on saving electricity, water, plastic, electronic equipment, and office stationery. The use of solar cells strongly supports energy efficiency, which is one of the energy-saving domains. According to Panwar, Kaushik, and Kothari (2011: 1513); Poullikkas (2010: 618), solar power with a thermal electric power system is a device that can use solar radiation for electrical energy by converting solar heat. Solar energy is collected and converted into electricity through the use of thermal energy to power electrical conversion devices through a process called photovoltaics, which can be implemented in either a centralized or decentralized way. The photo refers to light and volts for the mains voltage. This term describes an electronic

cell that produces direct current from electrical energy derived from radiant energy from the sun. Solar cells are one of the most promising options for providing the world's future energy needs in a sustainable manner. The use of this technology provides many benefits on the economic, social, and environmental sides.

School's Efforts to get Higher Honors

Kepala sekolah beserta komponen sekolah The school principal and school components always try to build a school atmosphere so that they remain oriented towards environmental care schools. This concern starts with teachers, employees, and students. Policies are always oriented toward caring and cultural schools that are already affiliated with SMAN 2 Temanggung. Building resonance on the hope of getting a higher reward does not necessarily enforce a top-down strategy, but synergy and harmony. Environmentally caring and cultured policies; environment-based curriculum development; the development of community-based environmental activities; and the development and management of supporting facilities for schools with insightful and caring environmental cultures; by developing a plan for harmoniously resonating schools with insight and care for the environment and taking the position of dissonant behavior in preventive efforts to minimize the possibility of the emancipation of the emancipated emancipated emancipated emancipated eDissonance is an echo or an echo that can produce an unpleasant echo. On the human self and is debilitating conscience, principles, and beliefs in both the educational and life processes. It is always there, often arises, and is quite strong in its existence. Four main factors cause the emergence of resonance and dissonance in a human being. The four factors are cognitive, personal, socio-political, and innate knowledge and patterns of modernization. As a strategy to

achieve peak achievements in the environmental field, these four factors will be able to be driven to bring innovation, creativity, sustainability, and an institutionalized life style in students. The concept of sustainability in accordance with the basic principles of the Adiwiyata program is participatory and sustainable (Kementerian Lingkungan Hidup; 2010).

CONCLUSION

The school tries to get a higher award by making small, long-term changes to the four parts of the instrument. These changes are made by using creative, innovative, and sustainable strategies and building a culture and way of life that is good for the environment.

consistently in carrying out the development of environmental care and culture policies, the development of environment-based curriculum, the development of community-based environmental activities, and the development and management of supporting facilities for caring and environmentally cultured schools.

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