



# Implementation Adiwiyata Program in Shaping the Environmental Care Character of Senior High School Students

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## ABSTRACT

### Keywords:

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The Adiwiyata Program is a government effort to address the crucial issue of environmental preservation, which directly impacts the quality of human life. This research explores student participation in participatory-based environmental activities within the Adiwiyata program. The study was conducted among senior high school students using a case study method with a qualitative approach. Data was collected through interviews and documentation due to the pandemic's limitations on extracurricular activities and online learning. The implementation of the program in senior high schools was carried out through four activity programs: building maintenance, land and facility utilization based on environmental protection and management principles, development of environmentally-focused extracurricular activities, and environmental action activities to commemorate environmental days. The Adiwiyata program has had a positive impact on schools and student behavior, resulting in a clean, beautiful, healthy, and comfortable school environment, increased awareness of environmental cleanliness, and good participation of students in environmental management activities.



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## A. INTRODUCTION

Environmental degradation is an event of decreasing environmental quality or decreasing the carrying capacity of the environment caused by humans or caused by nature (Adisukma & Rusadi, 2014). Basically, environmental degradation is caused by human activities that damage the environment such as deforesting forests, throwing garbage into rivers, burning forests, polluting water, air, and the sea which results in lack of oxygen, overheating, flooding, landslides, drought, lack of clean water, disease, and endangering other creatures and themselves. Humans can do this because of the demands to fulfill their life needs such as housing, agriculture, mining, building

factories whose waste can pollute the environment. This is due to the lack of environmental knowledge, behaviour, and awareness as the main obstacle to solving environmental problems (Parker et al., 2018).

Environmental management is one way to overcome this, both in the utilization, structuring, maintenance, supervision, control, recovery, and development of the environment and in its management is not only carried out by the government itself but involves the community through local wisdom from each region in Indonesia. Local wisdom, such as the traditional prohibited forests in Riau, is intended to help communities preserve the environment by creating various rules, including prohibiting tree felling, and imposing a fine of 6 million rupiahs or 100 kg of rice for violators. In addition to local wisdom, other efforts to preserve the environment are also being made understanding of environmental management is given through environmental education (Muslich, 2015). Environmental education is one of the rational alternatives to incorporate environmental education into the curriculum. Environmental education is one of the important factors in successfully educating individuals who are responsive to the pace of technological development, understand the problems in the biosphere, and have productive skills to maintain and sustain nature (Ipin, 2017). Environmental education can present a few different types of learning challenges for learners (Rickinson & Lundholm, 2015). Environmental education through education is shown by the cooperation between the Ministry of Environment in 2006 which launched the adiwiyata program as a follow-up to the memorandum of understanding on June 3, 2005, between the Minister of Environment and the Minister of National Education.

The adiwiyata program is one of the programs of the Ministry of Environment where the adiwiyata program is a comprehensive program involving all stakeholders in both schools and communities to help increase environmental awareness, especially for students (Iswari & Utomo, 2017). The adiwiyata program was launched to encourage schools in Indonesia to participate in implementing government efforts towards environmental conservation and sustainable development for the benefit of current and future generations. Through the adiwiyata program implemented in schools, it can attract students to be involved in pro-environmental activities (Tanu & Parker, 2018).

The adiwiyata program helps towards a school with character where development is carried out in the education system by focusing on developing aspects of intelligence (cognitive), aspects of skills (psychomotor), aspects of attitudes and values (affective) (Putri, 2019). The implementation of the three aspects of character education, namely knowledge, feelings, and action, must be carried out systematically and continuously (Sulistyarini et al., 2020). Thus, schools will be able to shape the character of students and other components and be able to build habits of awareness and care for the environment which will one day become students with personalities, while maintaining a balanced environment.

In implementing the adiwiyata program, schools receive assessments and awards that are given in stages. The Adiwiyata National Award is directly granted by the Minister of Environment and Forestry. The Adiwiyata Program is divided into three categories: independent Adiwiyata schools, Adiwiyata schools, and candidate Adiwiyata schools. The independent Adiwiyata award is given to schools that can maintain their environmental programs for three consecutive years. In the initial stage, the Adiwiyata award is divided into two categories: Adiwiyata schools, which are evaluated as having succeeded in implementing environmental education, and candidate Adiwiyata schools, which are evaluated as having succeeded in developing the environment. And in this study, researchers focused on Senior high school which is one of the public high schools in Pontianak city that implements the Adiwiyata program. The existence of this adiwiyata program

departs from the desire to form and improve attitudes and behaviors that care about the environment. The school realizes the importance of providing knowledge and teaching students the science of the environment and its management. For this reason, Senior high school implements the adiwiyata program. To achieve these goals, the implementation of the adiwiyata program at Senior high school is carried out through four activity programs, namely, (1) building maintenance and maintenance programs; (2) utilization of land and school facilities according to the principles of environmental protection and management; (3) development of extracurricular activities whose activities are utilized for environmental protection and management; and (4) environmental action activities in the school environment/outside the school environment in commemoration of environmental days. Therefore, this research aims to examine "How is the Implementation of Environmental Education through the Adiwiyata Program in shaping the Environmental Care Character of Students at Senior high school".

## **B. METHODS**

The form of research used in this research was qualitative research with a case study method. The case study method is an integrative and comprehensive data collection method, namely the data collected includes all disclosures of the background, status, environmental interactions of individuals, groups, institutions, and certain communities of society. Where in qualitative research, this model begins with very interesting attention, because it contains mysteries and demands immediate disclosure in obtaining the truth (Muchtar, 2015). Thus the researchers were interested in investigating this issue with a qualitative approach to the case study method with the aim of knowing the environmental care character of students at Senior high school through the Adiwiyata program. Data collection techniques were carried out using interview techniques and past documentation because the pandemic learning system was carried out online and all extracurricular activities were temporarily closed, so researchers were constrained to carry out observation techniques. The research informants consisted of 9 individuals, comprising the School Principal, Adiwiyata Supervisor, Adiwiyata Coach, 2 Teachers, and 4 Student Adiwiyata members. Senior high school. The data taken comes from primary data directly obtained from the field and secondary data obtained from written sources and archives or documents related to the implementation of the adiwiyata program at Senior high school. Data analysis was in the form of data collection, data reduction, data presentation and data verification based on the results of interviews, field notes, sound recordings and direct observation or with camera documentation (Sugiyono, 2018).

## **C. RESULT AND DISCUSSION**

### **1. The Concept of Adiwiyata Program at Senior high school**

The adiwiyata program at Senior high school is directed to become an environmentally sound and cultured school. An environmentally cultured school becomes a place of learning and awareness for school members in improving the quality of the environment now and in the future (Setyowati & Aji, 2015). Programs and activities developed must be based on basic norms and livelihoods which include togetherness, openness, honesty, justice, and sustainability of environmental functions and natural resources (Handayani, 2015). By adhering to these basic norms, it becomes a source of strength to build an environmentally cultured school institution. The success of a program in addition to good planning based on needs also requires budget allocation for environmental education development activities (Carol et al., 2018). Senior high school sets a policy related to the use of a budget of 20% of the total school budget for

environmental activities. The activities in question can be in the form of tree planting, cleaning actions in the school environment, as well as capacity building related to environmental conservation and management for school staff, both teaching and school administrative staff.

The implementation of the *adiwiyata* program at Senior high school was not limited to green environmental engineering, but also energy saving, clean environment, good waste management, gardening, striving for healthy and hygienic food and reducing the use of plastic waste. This is in accordance with the principles of education for sustainable development. The expected results of ESD are changes in attitudes, values, and behaviors such as the lifestyle of all levels of society in a positive direction to meet the goals of sustainable development (Handayani, 2015). *Adiwiyata* as one of the vehicles of education for sustainable development, which is under the coordination and responsibility of the MOE and is a national scale program managed in order to realize the development of EE environmental education (Prasetyo & Hariyanto, 2017). Therefore, as a form of EE, the basic principles of *adiwiyata* are participatory and sustainable. Participatory means that the school community is involved in the whole process including planning, implementation, and evaluation according to the responsibilities of their respective roles. And sustainable, where all activities must be carried out in a planned and continuous manner in a comprehensive manner.

The *adiwiyata* program is seen as a form of government commitment to environmental management and protection through education (Baharudin, 2017). Where the end result of this *adiwiyata* program is a change in behavior, especially students (Indahri, 2020). Changes in behavior shown by students at Senior high school can be seen through the actions and participation of students in participating in pro-environmental activities at school. It indicated that students have built relationships with nature by treating nature not as it is but tends to be as it should be. Because in essence humans are not only *homo socius* but also *homo ecologus*, meaning that humans are an inseparable part of an ecosystem, so humans tend to always understand their environment (Obaid, 2013).

Students' awareness and moral responsibility towards the environment in the implementation of the *adiwiyata* program at Senior high school was carried out through efforts to prevent natural damage such as environmental care, reducing the use of plastics, managing waste according to its type, reducing carbon emissions, saving energy and efforts to repair natural damage that has occurred such as planting trees, utilizing used goods. Environmental awareness building is also done by urging students to always maintain cleanliness in the environment using the motto *LISAMBUNG* which stands for "see garbage, take it, and dispose of it properly." This motto is always applied when encountering students who litter and is reminded during flag ceremonies. Through the *LISAMBUNG* motto, it is hoped that students will have a sense of ownership towards the environment. As stated by one of the students:

"We are constantly reminded to maintain cleanliness in the school's surrounding environment. This reminder is conveyed during flag ceremonies, and every teacher who enters the classroom reminds us to check the cleanliness of our desk drawers and surroundings. Even before the start of classes, we have already conducted cleaning duty in our classrooms".

## **2. Implementation of Adiwiyata Program in Forming Students' Environmental Care Character at Senior high school**

The implementation of the adiwiyata program at Senior high school was a form of school effort in supporting government programs in order to encourage the creation of knowledge and awareness of school community in environmental conservation. This program was created to answer environmental problems, because the adiwiyata program has a strategic role in increasing environmental awareness and creating a healthy environment and avoiding negative environmental impacts (Widyaningrum, 2016). From this, the adiwiyata program is in accordance with the paradigm of ecocentrism (deep ecology) promoted by Arne Naess. This paradigm places humans as ecological beings who are highly dependent on the environment and have concern for the preservation of the environment and the universe (Sutoyo, 2013).

The suitability of the adiwiyata program with the paradigm of ecocentrism (deep ecology) was proven during the implementation of the adiwiyata program at Senior high school through participatory-based environmental activities. First, there were efforts to manage the school environment with 3R activities, namely reducing waste (Reduce), at Senior high school students were encouraged to always bring tumblers to school. Reuse, in terms of creative products produced by students, one of which is the use of used bottles as planting media and hanging pots. Recycle, the recycling process was carried out by separating waste according to its type, organic and inorganic. From the separation of this waste will be managed into a useful product, such as inorganic waste will be processed into compost. From small activities like this, it will familiarize individuals to reforest on a small scale starting from the school environment or public scale such as urban environments (Sulistyarini et al., 2022). Second, there was an effort to save energy. This effort was carried out by urging all school residents to save energy by turning off lights and equipment when not in use, turning off water taps when not in use, and turning off unnecessary electricity.

Third, there was an effort to do greening by planting trees in the environment around the school. Fourth, there were efforts to use environmentally friendly facilities and infrastructure. In supporting the implementation of the adiwiyata program, the school has provided facilities and infrastructure to support environmental learning in the form of seedling houses, fishponds, infiltration wells, biopores, and healthy canteens. Environmentally friendly facilities are a powerful learning tool to form a positive attitude towards the important goal of minimizing consumption by building residents of limited resources such as water and energy (Izadpanahi et al., 2017). Fifth, the participation of school members in participating in environmental actions outside the school, such as the green leader initiative activity organized by hilo green community park with the theme of independent waste and tree planting along sungai jawi road held by the Pontianak city government. The participation of school members in participating in environmental actions outside of school is a process of increasing students' self-actualization through activities that lead to direct action in the field (seeing, studying, and taking concrete actions in realizing the preservation of nature or conservation). (Rahma, 2017). Thus, participatory-based environmental activities provide opportunities for students to learn about environmental values so that they can become agents who are more oriented towards the sustainability of environmental conservation (Prasetiyo et al., 2020). And help students think critically about their relationship with the natural environment and to help them build ecological identity and grounded awareness about the wise use of natural resources (Velempini et al., 2018).

The adiwiyata program run at Senior high school is part of the Sustainable Development Goals (SDGs). The fourth goal of SDGs aims to ensure inclusive and equitable quality education

through the promotion of lifelong learning opportunities (UN, 2015). SDGs with EE content have become a commitment and shared responsibility of the world community to save the earth from damage and destruction due to development that does not pay attention to environmental sustainability (Indahri, 2020). UNESCO has called on all member countries to implement EE which is integrated into the general environmental education curriculum (Jayadinata, 2017). This is in accordance with the implementation of the curriculum at Senior high school, which has integrated environmental materials into subjects. In its implementation, Adiwiyata is a top-down program, because this program is the result of the MoU between the Ministry of Environment (KLH) and the Ministry of National Education on June 3, 2005. Hence in this case Senior high school is the target implementer of this program.

The target of the adiwiyata program implementation is formal education. This is because schools have a function or role that contributes to shaping life values, especially the value of environmental cultural awareness (Putri, 2019). Combining a formal education approach with the mandatory, action-oriented Adiwiyata program will offer a well-rounded environmental education experience for students and still meet the need for achievement and winning at school (Prabawa-Sear, 2018). In implementing the adiwiyata program, schools are assessed and will also be given awards that are given in stages. During the implementation of the adiwiyata program at Senior high school, it has received a city level award on December 16, 2016 which was given by the mayor of Pontianak H. Sutarmidji, S.H., M.Hum. The assessment criteria are based on 4 components of the adiwiyata program implementation, namely (1) environmentally sound policies; (2) implementation of environment-based curriculum; (3) participatory-based environmental activities; and (4) management of environmentally friendly supporting facilities (Adiwiyata Team, 2012). First, in terms of environmental policies, Senior high school has implemented a school greening program. The policy realizes a cultured and environmentally concerned school to excel in the field of science and technology and have an IMTAQ insight with the hope that school residents have a character of virtue, faith, and compete with efforts in environmental protection and management through the vision, mission, and objectives of Senior high school. Second, the implementation of an environment-based curriculum, the curriculum used is the 2013 curriculum with additional renewal of environmental materials integrated into subjects or lesson plans. Third, participatory-based environmental activities were carried out through four programs, namely the maintenance and care program for school environmental buildings, the use of land and school facilities according to the principles of environmental protection and management, the development of extracurricular activities whose activities are used for environmental protection and management, environmental action activities in the school environment/outside the school environment in commemoration of environmental days. Fourth, the management of environmentally friendly supporting facilities in the form of seedling houses, fishponds, infiltration wells, biopores, and healthy canteens.

### **3. The Impact of Adiwiyata Program on Students at Senior high school.**

The implementation of the adiwiyata program at Senior high school is expected to have a positive impact on the school and all other school residents, especially students. In addition to having an impact on the residents, the implementation of the adiwiyata program itself has an impact on the school environment. The impact felt is that the school environment becomes cleaner, beautiful, healthier, and more comfortable. From environmental conditions like this, it has an impact on the occupants, especially students, to be happier and more comfortable while at school. Because of the clean and healthy school environment describes a condition where all components

of the school environment are in a balanced condition, meaning that there is a match between the carrying capacity and capacity and the availability of facilities and infrastructure in the school environment (Carol et al., 2018).

The adiwiyata program also has an impact on the behavior of students. Where the level of awareness of students in maintaining environmental cleanliness has increased and the participation of students in participating in environmental management activities at school is good. In shaping the character of environmental care is done by involving students in the implementation of the adiwiyata program. The involvement of these students includes actions where individuals participate in environmental care activities that individually enrich each other and benefit students and the surrounding community. The positive impact is also accompanied by the role of teachers in urging and reminding students in terms of maintaining the cleanliness of the school environment. Because environmentally minded teachers are not necessarily trained or required to teach about environmental issues, but they do it because of their values and beliefs (Morrison, 2018).

Thus, the impact of the implementation of the adiwiyata program at Senior high school in shaping students' environmental care character is part of the effort to realize good citizenship. In realizing this, the character of caring for the environment is needed. Environmental care in civic education is part of character education that teaches students to have concern in preventing natural damage and developing efforts to repair natural damage.

The implementation of the adiwiyata program at Senior high school is part of the implementation of ecological citizenship. The implementation of this program is a form of operationalizing citizens' concern for environmental protection and sustainable development from the perspective of ecological citizenship (Prasetiyo et al., 2019). The concept of ecological citizenship is a thought that is closely related to the ethical and moral procedures of citizens towards the environment (Jannah, 2018). This is driven by a radical transformation in worldview, which is followed by mental and behavioral changes that are reflected in a good lifestyle as individuals and cultural groups (Sutoyo, 2013). In the form of re-awareness of ecological awareness that recognizes the unity, interconnectedness and interdependence between humans, plants and animals and the entire universe. This is manifested in the conscious behavior of students in managing and preserving the environment carried out through participatory-based environmental activities to prevent and repair natural damage.

#### **D. CONCLUSION AND SUGGESTION**

The pro-environmental behavior and social responsibility exhibited by students are considered good, as evidenced by their participation in participatory-based environmental activities in every program that has been initiated. These activities include planting trees, flowers, medicinal plants, reducing plastic usage, waste management according to its type, making compost fertilizers, utilizing used items, maintaining flower pots, energy conservation, maintaining teacher and student toilets, class cleanliness, school drainage maintenance, and student participation in environmental care actions outside the school. As a comprehensive program, Adiwiyata has a positive impact on the school environment, making it clean, beautiful, healthy, and comfortable, supported by adequate facilities and infrastructure. The condition of the environment has an impact on its occupants, especially students and other school residents, who feel happier and more comfortable at school. The change in students' behavior towards being pro-environment and socially responsible, as urban children, is the starting point for preventing environmental damage and initiating green reforestation in Indonesian cities. The results of this

research are expected to support students in realizing and practicing their attitude of environmental care, as educated individuals who must set a good example for their surrounding environment, namely at school, in the family, and in the community.

In implementing the adiwiyata program, students have an important role as policy implementers, so they must always be involved and socialized in every activity of the adiwiyata program. Apart from being at school wherever students are, they must be able to maintain and practice an attitude of environmental care, because students as educated people must be able to set a good example for the surrounding environment, namely in schools, families, and communities. The results of this study are expected to be a source of reference for further research on adiwiyata schools and provide new information about policies in the implementation of environmentally friendly schools.

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