



Optimizing citizenship education for ecological awareness: Analysis of the effectiveness of the *lihat sampah ambil* (LISA) program in environmental conservation

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Abstract: Given that the problems associated with waste pollution can result in air pollution and even natural disasters, waste pollution is an intriguing topic to examine. According to a number of estimates, Indonesia will produce 67 tons of waste in 2020, and this amount would likely rise annually. In order to prevent and develop students' environmentally caring character from an early age, it is necessary to create an environmental awareness formation program in the secondary school environment. This problem arises from a lack of public awareness and concern for the surrounding environment. To take this preventive action, SMP Dharma Pancasila Medan established the LISA (*Lihat Sampah Ambil*) initiative. This application was made based on the ideas of the PPKn teacher at the school. The LISA program has been running for one year at Dharma Pancasila Middle School in Medan. The implementation of the LISA program at Dharma Pancasila Middle School in Medan received positive results, although at the beginning of the implementation of this program there were several common problems that arose from students and teachers at the school. However, within one year of implementing the LISA program, the environment at Dharma Pancasila Middle School is now much cleaner than before, and there is no longer any rubbish scattered around the school environment.

Keywords: Civic education; ecological awareness; environmental conservation; LISA program

Introduction

In recent years, environmental issues have been in the headlines and have become a topic of global discussion. The environment is very important for life and other activities, therefore, humans are required to be able to preserve the environment in order to create continuity of life in the future. Starting in 2020, Indonesia is predicted to contribute around 67 tons of waste and this number will continue to increase along with the increase in population (Aditya, 2020). The biggest contributor to waste comes from household waste, which includes waste from food scraps amounting to 39.8% of the waste produced by the Indonesian population in 2020, thus accelerating global

warming due to methane gas produced from this waste (Agmasari, 2021; Yusuf & Fajri, 2022). Apart from household waste, waste generated from e-commerce (online shopping) which is currently trending in the era of globalization, also contributes a lot of plastic waste such as bubble plastic, which has properties that are difficult to decompose (Corraliza & Collado, 2019; Wierzbiyski et al., 2021). Based on research results from The National Plastic Action Partnership (NPAP) which recorded that Indonesia produces 4.8 million tons of plastic waste every year (Situmorang, 2021).

The increasing amount of waste that occurs is closely related to the large population in Indonesia. Based on research data collected, it

states that each individual produces 0.5 kg of waste every day, and this amount is the amount of waste found in small cities only, whereas in large cities in Indonesia the amount of waste produced by the community That can reach 1 kg of waste per day (Izharyah, 2020). The difference in the total amount of waste produced by small cities and large cities is caused by the density of activities that occur. The facts conveyed by the director of waste management at the Ministry of Environment and Forestry, are that there are 72% of Indonesian people whose level of awareness is still very low regarding waste problems so that the amount of household waste and plastic waste continues to increase, where the increase in the amount of waste in Indonesia has started since In 2015, the percentage increase in household waste and plastic waste reached 11%. In this case, the Ministry of Environment and Forestry also predicts that in the next 10 years this figure will continue to increase and could even reach almost 16% per year (Central Statistics Agency, 2018).

So far the level of awareness among Indonesian people regarding waste is still very low, this can be proven by the large number of people who throw rubbish carelessly out of place, such as throwing rubbish on roads, in rivers and in ditches, which can cause effects such as air pollution caused by the stench of rubbish and flood disasters which are the effects of throwing rubbish into ditches and rivers (Yusuf et al., 2021; Yusuf et al., 2022). Waste management is actually regulated in law number 18 of 2008 and PP number 81 of 2012, which explains that there are two ways of processing waste, namely handling and reducing (Razak et al, 2020), based on Law number 18 of 2008 and PP No. 81 of 2012, the waste reduction process is carried out starting from the source of the waste, up to the final waste processing, while waste reduction is carried out through the 3R process (Reuse, Recycle and Reduce).

The 3R process is the most suitable process for reducing the accumulation of waste, because the 3R process is a process of recycling unused waste into waste that can be reused, whereas in terms of waste handling it is a technical matter for managing waste starting from placement, collection and transportation. until the final stage of processing. Therefore, so that the implementation of one of the waste handling processes can run smoothly, knowledge is needed in maintaining environmental balance and the need for habits that must be taught to all individuals from an early age (Gani et al, 2023; Siregar et al, 2021; Yusuf et al., 2020).

The integration of ecological citizenship character formation has not been fully implemented in all school environments in Indonesia, so that environmental programs created at one school level have not been fully successful. Various studies have identified obstacles that often occur in implementation in the school environment, which can be categorized as personal and logistical obstacles (Ko & Lee, 2003; Yusuf et al., 2020).

The obstacles that occur are caused by a lack of self-motivation and initiative, inadequate teacher training, resources, funding, and class hours that are not possible due to the curriculum being too dense and the lack of activities provided by the school outdoors (Ajiboye & Silo , 2009; Kelani, 2015; Kiarie, 2016; Kimaryo, 2011; Mwanza, 2016; Nsamenang & Tchombe (Eds.), 2011). The aim of this research is to find out the ecological citizenship formation program that is implemented at the junior high school (SMP) level, and how this habituation program can be integrated as a mandatory program that will continue to be implemented in the Medan Dharma Pancasila Middle School environment, and to find out the obstacles which occurred from the implementation of the ecological citizenship program implemented at SMP Dharma Pancasila Medan. The LISA (*Lihat Sampah Ambil*) program is a program that will be implemented in 2022 at Dharma Pancasila Middle School in Medan. This program aims to develop an attitude of concern and awareness among students to care about their environment.

Ecological Citizenship

The plan for the formation of ecological citizenship is very important in shaping the responsibility of the country's people towards their environment. Ecological citizenship basically includes an understanding of environmental issues, the rights and responsibilities of the people of the country in environmental issues (Jannah, 2018). Apart from that, ecological citizenship includes efforts to overcome environmental problems and to introduce positive and sustainable interactions between humans and the surrounding environment (Clarke & Agyeman, 2011: 1775; Latta, 2007: 18). When connected to the context of society in the current digital era, where social media has become a tool that makes it easier to make changes to empower society (Lupton, 2013), therefore the opportunity to form ecological citizenship can become easier.

The design of ecological citizenship is an idea related to the ethical and moral procedures of citizens regarding the state of the surrounding environment. Implementing a responsible attitude in protecting and preserving the environment (Siagian et al., 2023; Yusuf et al., 2020). The attitude of ecological citizenship is formed from green political philosophy, the concept of ecological citizenship has subsequently experienced deepening and expansion. In the opinion of Latta and Garside (2005), several researchers who developed ecological citizenship plans have their own characteristics, (Dobson & Bell 2006; Dobson & Valencia Saiz 2005), looking at aspects of attitude change; (Curtin 1999; Smith 1998; Smith 2005) explains that aspects of environmental ethics; (Carlsson & Bruun Jensen 2006; Gough & Scott 2006) emphasize ecological citizenship towards educational aspects; (MacGregor, 2006) in the gender aspect; (Valencia Saiz 2005; Dobson 2003; Jelin 2000) explains the appropriate aspects of ecological political scales from local to global.

The Role of Citizenship Education in Forming Ecological Citizenship

Cogan and Kerr in Winataputra and Budimansyah (2012, pp. 5-11) define Citizenship Education as a basic subject studied in school which is designed to form young citizens, so that in the future they can play an active role in society. If formulated broadly, citizenship education includes the process of preparing the younger generation to carry out their roles and responsibilities as citizens and specifically includes the school environment, teaching and learning, in the process of preparing citizens.

Citizenship education also has a relationship that is closely related to developing intellectual abilities and student participation as citizens. This matter is similar to what was stated by Somantri N in Nurmalina and Syaifullah (2008:3) who stated that Citizenship Education is an educational program that has the core of political democracy which is explained broadly with other sources of knowledge, positive influences arising from education in schools, communities, parents, and all of this becomes a process that aims to train students to think critically, analytically, to behave and act democratically to prepare for a democratic life in accordance with Pancasila and the 1945 Constitution of the Republic of Indonesia.

Citizenship education has a role as one of the pillars in forming national character and identity. Citizenship education is a field of study that is studied at all levels of formal education

from elementary school to university level. Citizenship education is in a very vital position because it is tasked with forming good citizens (Pratomo et al, 2023). Instilling the character values of caring for the environment in students must be connected and applied to classroom learning because teachers have a very crucial role in determining the attitudes of the character values of environmental care in students, because in the learning process students will receive education and instill attitudes. In this case, the teacher also looks at the condition of the students and does not force the students to obey if it is just a matter of compulsion and not based on their own awareness.

Teachers must also observe the aspects that exist in students so that it can make it easier for teachers in the process of guiding and directing students to instill environmental care values in the learning process, so that students can observe and understand what will be taught by them. the teacher. The value of environmental concern is sustainable attitudes and actions aimed at preventing damage to the surrounding environment and working hard to repair environmental damage that has occurred. In this case, it really requires hard work to achieve this goal in implementing it every day in the school environment. By implementing environmental awareness, it means teaching students to get used to being kind and caring about the condition of the surrounding environment (Mahjong, 2018).

Method

This research uses a qualitative approach using analytical description methods. Qualitative research is research that aims to understand phenomena experienced by subjects directly in the field. This research also has a distinctive characteristic in its aim: describing special needs by providing meaningful understanding and symptoms and compiling data obtained in the field. Qualitative research also focuses more attention on general principles and the manifestation of units of symptoms found in human/society life (Sugiyono, 2017). In this approach, social reality is holistic/comprehensive, complex, dynamic and full of meaning (Creswell, 2014).

The location of the research was at Dharma Pancasila Private Middle School, Medan, which is located on Jalan Dr. T. Mansyur No. 71 A Medan, Padang Bulan Selayang I, Medan Selayang District, Medan City, North Sumatra. The data collection techniques used in this research are observation, interviews and documentation.

After that, the researcher analyzed the data in a systematic way, searching for and compiling data obtained from observations, interviews, and documentation by organizing the data into descriptive form using several components, namely: reducing data, presenting data, and searching for data (Creswell, 2014). The target of this research is to see the success of implementing an environmental care program through joint participation carried out by students at the school.

Research participants

Table 1. Description of research participants

| No | Responden | Deskripsi Sample |
|----|------------------------------|--|
| 1 | Civic Education Teacher | He is a Citizenship Education teacher from Dharma Pancasila Middle School, Medan. In this case, Citizenship Education teachers have a very deep understanding of ecological citizenship. The Citizenship Education Teacher plays a role in forming the environmentally conscious character of students at Dharma Pancasila Middle School in Medan. The Citizenship Education Teacher also acts as the driving force of the LISA program. |
| 2 | Headmaster | He is the leader of SMP Dharma Pancasila Medan, who serves as a leader and policy maker. The school principal also has an important role in approving every program created by the Medan Dharma Pancasila Middle School teachers, as well as monitoring whether the program is running well or not. And also assess the implementation of the programs that have been implemented |
| 3 | Class VII, VIII, IX students | Is the implementer of programs implemented by subject teachers, as well as those implemented in schools. Students are also beneficiaries of the activity programs they carry out in the school environment. Where all the activities they carry out in the future will have a positive impact on their lives, both in the family environment and in the community. |

Research procedure

In this research, data was collected through in-depth interviews and observations of the activities carried out. In-depth interviews were used to obtain respondents' views and perceptions regarding the integration of the LISA program implemented at Dharma Pancasila Middle School in Medan (Smith & Johnson, 2015). Meanwhile, observation activities were carried out to see the effectiveness of the implementation of the LISA program implemented in the Dharma Pancasila Middle School environment in Medan.

Research analysis

The data analysis process involves two main approaches. First, data from in-depth interviews were analyzed using a qualitative approach. Second, analyze the documentation. By using a holistic approach, this research aims to provide in-depth insight into the ecological citizenship program implemented at SMP Dharma Pancasila Medan, understand the implementation process,

The research sample consisted of three different respondents: citizenship education teachers, school principals, and representatives of class VII, VIII, and IX students. Samples were selected purposively based on predetermined criteria. Each respondent shared their experiences and perceptions related to the issues studied. Civic education teachers, school principals and students in grades VII, VIII and IX have different roles in the context of implementing the program, so their understanding is necessary in expressing diverse views through sample descriptions (Table 1).

and also to find out the obstacles to implementing the program.

Result

Perceptions of Citizenship Education Teachers efforts to integrate ecological citizenship through the LISA program at Dharma Pancasila Middle School Medan is part of the process of forming an attitude of ecological citizenship intended for students at Dharma Pancasila Middle School Medan. This program aims to create awareness and concern for students regarding the cleanliness of their surrounding environment. This analysis aims to reveal the enthusiasm and various challenges faced in the process of implementing the program.

Interviews conducted by researchers with civic education teachers, aimed to reveal the implementation of the LISA program, the integration of the program with the Dharma Pancasila Middle School environment in Medan, the positive impact of program implementation,

as well as obstacles to the implementation of the LISA program. which was implemented at SMP Dharma Pancasila Medan.

From the interviews conducted, it is known that:

"The LISA program is a discourse that I discussed at the end of 2021, but the implementation of this program can only be approved and realized in 2022 by the principal of Dharma Pancasila Middle School, Medan." (Civic Education Subject Teacher at Dharma Pancasila Middle School, Medan).

The initial process of implementing the LISA program at Dharma Pancasila Middle School in Medan can be seen in figure 1



Figure 1 implementation of the LISA program at SMP Dharma Pancasila Medan

Figure 1 shows the beginning of the implementation of the LISA program at Dharma Pancasila Middle School, on September 27 2022, the inauguration of the implementation of this program was attended by the principal of Dharma Pancasila Middle School Medan and the head of the foundation was also present to inaugurate the implementation of the program.

"The implementation of the LISA Program at the start of its implementation encountered obstacles, these obstacles arose mostly from students in grades VII, VIII and IX, and there were also obstacles from several teachers in other fields of study in the process of monitoring program activities which were ineffective "So many of the students who carry out the program activities are not supervised, so many of the students are confused, and some even don't want to carry out the activities of the LISA program." (Civic

Education Subject Teacher at Dharma Pancasila Middle School, Medan).

The obstacles caused by students due to the lack of supervision carried out by several teachers at Dharma Pancasila Middle School in Medan, as conveyed by the PPKn teacher, can be seen from figure 2 below.



Figure 2 depicts LISA activities

Based on figure 2 above, it shows one of the obstacles to implementing the LISA program. From figure 2 it can be seen that there is a lack of supervision carried out by teachers at the school, so that many students who carry out the program activities seem to be playing around while doing it. their work which results in wasted time in implementing the program which has an impact on less than optimal results from these activities.

Implementing a new program is not as easy as you think, especially since the implementation of Ecological Citizenship can still be said to be new in the process of direct implementation in schools. In this case, the PPKn teacher as the driving force of the LISA program said that to make the implementation of this program effective requires a little time and our collective efforts so that the benefits of this program can be enjoyed together.

Findings from interviews and observations conducted by researchers regarding the implementation of the LISA program at Dharma Pancasila Middle School, Medan, still face several challenges and obstacles, from students and also from teachers in the school environment. Overcoming this challenge requires time and high awareness from each party so that in the future this program can run well and sustainably so that it will provide positive benefits for students to form environmental awareness of the environment from an early age.

Environmental conditions at Dharma Pancasila Middle School after implementing the LISA program

The LISA program is an ecoliteracy program implemented at SMP Dharma Pancasila Medan since September 2022. This LISA program has been running for one year since it was implemented. The activities of the LISA program are where students at Dharma Pancasila Middle School in Medan, from classes VII, VIII, and IX are required to collect (collect) rubbish that is scattered around the school environment. This activity is carried out every day starting from when students want to enter the school environment, after completing the ceremony every Monday, during break time, and after coming home from school. During these hours, the PPKn teacher or picket teacher on duty takes turns announcing appeals from the teacher's office using a microphone to students and also to teachers. The appeal calls for "all Dharma Pancasila Middle School students from classes VII, VIII, and IX are expected to pay attention to the rubbish that is near them so that it is immediately collected and put in the available rubbish bins, and for teachers it is hoped that they don't forget to remind our children to always pay attention to their surroundings." That is the appeal that has been conveyed every day during school hours since the LISA program was implemented.

During the LISA program which was implemented for one year at Dharma Pancasila Middle School in Medan, the cleanliness of the school environment looked cleaner than before. The results of the LISA program activities can be seen in figure 3 below.



Figure 3 Dharma Pancasila Middle School field in Medan

Based on figure 3 above, it shows the cleanliness of the environment at Dharma Pancasila Middle School in Medan after the implementation of the LISA program at the school which has been running for one year. The

condition of the school grounds looks cleaner than before the implementation of the LISA program, said the principal of SMP Dharma Pancasila Medan.

Interview with the principal of SMP Dharma Pancasila Medan:

"As a school principal, at first I was still hesitant to implement the LISA program proposed by the PPKn teacher, at that time I felt that implementing this program would be in vain considering that the number of students at SMP Dharma Pancasila Medan was not very large in number" . (Principal of Dharma Pancasila Middle School, Medan).

"After I approved the implementation of the LISA program, at the beginning of the implementation of the program there were still no significant changes that occurred in the school environment, there were many obstacles that arose from students and teachers at school, but with my confidence and also the confidence of the PPKn teachers who say that this program can run smoothly, so I still believe in this program." (Principal of Dharma Pancasila Middle School, Medan).

"After running the LISA program for one year in the environment at SMP Dharma Pancasila Medan, I just felt that there were changes taking place in the school environment, the condition of the school environment was cleaner than before and there was minimal amount of rubbish strewn around the school environment" . (Principal of Dharma Pancasila Middle School, Medan).

Findings from interviews and observations conducted by researchers show that there has been a change in the implementation of the LISA program at SMP Dharma Pancasila Medan. The changes that occur require a process and do not provide a positive effect on the school environment quickly.

Because implementing a program in a school requires patience, as well as high confidence and hard work from all elements in the school, starting from the principal, teachers, and students so that the program implemented can run effectively.

Interview with representatives of Dharma Pancasila Middle School students

"At the beginning of implementing the LISA program at Dharma Pancasila Middle School in Medan, I felt that this program was a good

program to form an attitude of environmental awareness and also discipline within me." (Grade VII student at Dharma Pancasila Middle School).

"With the implementation of the LISA program at Dharma Pancasila Middle School in Medan, at first I felt that this program would be a waste of my time, because for me this program did not really provide significant benefits in my daily life, but after the program "This is going on and I feel the changes that I feel are happy because being in a clean environment is much more comfortable than being in a dirty environment." (Class VIII student at Dharma Pancasila Middle School).

"At the beginning of the implementation of the LISA) program at Dharma Pancasila Middle School in Medan, I felt happy, for me this program to form a caring attitude towards the environment really needs to be implemented, because considering that currently many people are not aware of environmental cleanliness. "From this nature, negative effects occur, such as air pollution and flooding." (Students of Class IX SMP Dharma Pancasila Medan).

Findings from interviews and observations conducted by researchers show that there are pros and cons within students when a new program or new habit is implemented at school. In this case, some students think that there is no significant effect from implementing this program, and some even think that this program is very good to implement as a form of building an attitude of concern for the environment from an early age in the school environment.

Barriers to implementation

In the process of implementing the LISA program at SMP Dharma Pancasila Medan, there were several obstacles. These obstacles arise from students, where students must always be monitored every day so that activities in the LISA program can run optimally.

Apart from that, the next challenge arises from teachers who are assigned to always supervise students in between their activities. In terms of this supervision, quite a few teachers are unable to help supervise this activity, due to the dense load of teaching materials, as well as other obstacles which are the reasons for several teachers at SMP Dharma Pancasila Medan for not wanting to participate in supervising LISA

program activities at SMP Dharma Pancasila Medan.

Discussion

Integration of the LISA Program at SMP Dharma Pancasila Medan

This research reveals how the integration of the LISA program at Dharma Pancasila Middle School in Medan. This is a very important step to see the success of the implementation of the program which is implemented at SMP Dharma Pancasila Medan. The LISA program, initially it was not easy to get approval for its implementation from the school principal, because the school principal at that time felt that this program did not provide significant benefits considering that the number of students from SMP Dharma Pancasila Medan was not too large, so the implementation this program would be a waste of time.

After implementing the LISA program for one year in the Dharma Pancasila Middle School environment in Medan, the doubts that initially emerged from the principal of the Medan Dharma Pancasila Middle School, turned into a belief in the program, and according to the principal, in implementing a the new program must require hard work, patience, and faith. After that, the principal said that this program must continue because this program is very useful in forming an attitude of caring for the environment from an early age among students at SMP Dharma Pancasila Medan, in this case emphasizing that the integration of the LISA program is implemented in the SMP Dharma environment. Pancasila is a good and important start in instilling environmental awareness in students from an early age.

Benefits arising from the LISA program

This research also highlights the benefits that have been provided from implementing the LISA program at Dharma Pancasila Middle School in Medan. The enthusiasm for implementing the LISA program at Dharma Pancasila Middle School in Medan was not very good at first, this was because there were still pros and cons that occurred among students and also several teachers at Dharma Pancasila Middle School in Medan. From the results of interviews conducted by researchers with several representatives of class VII, VIII, and IX students, some of the participants agreed with the implementation of the LISA program at Dharma Pancasila Middle School, Medan, because the

program is very good to be implemented as a strengthening students' caring attitude towards the environment from an early age, on the other hand there are also students who are against the implementation of the LISA program because they think this could disrupt their study hours at school.

Meanwhile, from several teachers at Dharma Pancasila Middle School, Medan, there were also opposing opinions regarding the implementation of the LISA program at Dharma Pancasila Middle School, Medan, some teachers stated that they could not be involved in implementing this program on the grounds that the current curriculum content This is so much so that several teachers said this was an obstacle for them to take an active role in the implementation and implementation of the LISA program at SMP Dharma Pancasila Medan.

Based on the pros and cons opinions that emerged from students and several teachers at Dharma Pancasila Middle School in Medan, this does not hinder the implementation of the LISA program. Even though the implementation and supervision cannot be said to be optimal, this program has already had a positive impact on the Dharma Pancasila Middle School environment in Medan. The positive impact of the LISA program can be seen in figure 3 which was previously included in the research findings section. Figure 3 is enough to explain the current state of the environment after the LISA program has been running for one year, where the Medan Dharma Pancasila Middle School field looks clean and there is no more rubbish strewn around it.

Overcoming barriers to implementing the LISA program

This research not only looks at the effectiveness and obstacles of implementing the LISA program at SMP Dharma Pancasila Medan. But this research also looks at how to overcome the obstacles that exist in implementing the program. One of the ways that is felt to be the most effective for overcoming problems arising from the Medan Dharma Pancasila Middle School teachers is to create a picket list of teachers who are tasked with supervising the program's activities every day. This is done as an effort to prevent vacancies in monitoring the daily implementation of the LISA program.

Meanwhile, to overcome obstacles on the part of students is by giving them daily invitations (appeals) as a reminder as well as to mobilize an attitude of awareness within students to care about the cleanliness of their environment. This notification can be delivered

by one of the teachers who is in charge of supervising the LISA program. In this way, problems that arise from students will slowly be resolved easily, and the LISA program can run smoothly and effectively at smp dharma pancasila medan.

Conclusion

This research explains the program for forming environmental awareness from an early age for students implemented by SMP Dharma Pancasila Medan, through the LISA program. The LISA program is a program created based on an idea created by the PPKn teacher at Dharma Pancasila Middle School as a form of developing students' awareness of their environment. This program has been running for a full year at the school. Apart from that, this research also explains how the LISA program began to be implemented. As a relatively new program, there are certainly several obstacles that occur in implementing this program, these obstacles originate from students and also from teachers in the school environment. However, this problem can be overcome by using various methods such as making a picket schedule, as well as making daily notifications to students so that the program being implemented can run effectively.

Viewed from a scientific perspective, the LISA program is quite good as a program that aims to develop an attitude of environmental awareness among students at Dharma Pancasila Middle School in Medan. This program can be said to be good because in its implementation this program is flexible and very easy to implement in daily life in the school environment, this program does not interfere with teaching and learning activities in the classroom in the slightest, and this program also involves the teachers in SMP Dharma Pancasila Medan, so that efforts to form students' environmentally caring attitudes become more effective.

Disclosure statement

In the research conducted, the author has no conflict of interest at all and just wants to see an effectiveness of the application of the program studied by the author.

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