

The Environmental Awareness of Junior High School Students in Sleman Yogyakarta

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Abstract. Environmental problems are one of the complex problems in Indonesia. Lack of public awareness of the importance of the environment raises various problems. education becomes a promising alternative tool to address increasingly worrisome environmental problems. The environmental education program implemented in schools is called the Adiwiyata program. Muhammadiyah 2 Depok Junior High School is a private school in Sleman Regency, Yogyakarta that implements the Adiwiyata school policy's program. However, so far the extent of students' environmental awareness is unknown. This study aims to find out Students' attitude towards environmental care in Muhammadiyah 2 Depok's Junior High School, Sleman, Yogyakarta. The method used in this study was a survey research through a quantitative approach. The population of this study was all of the students in Muhammadiyah 2 Depok Junior High School. The sampling technique applied in this study was proportional stratified random sampling so that the samples of 161 students were obtained using Isaac and Michael's table with an error rate of 5%. Measured variable consisted six indicators of students' attitude towards environmental care namely; (1) energy consumption, (2) attitude towards garbage, (3) environmental hygiene, (4) clean water usage, (5) the increase of carbon emission and (6) fuel consumption. The data collection technique applied in this study was through questionnaire. The test of the instrument validity used the correlation of Product Moment and the applied reliability test was Alpha Cronbach. Meanwhile the applied data analysis technique in this study was descriptive statistical analysis techniques. The result showed that the students' attitude towards environmental care in Muhammadiyah 2 Depok Junior High School, Sleman, Yogyakarta was 8.7% in the very good category, 88.2% in the good category, 3.1% in the sufficient category and 0.0% in the less category. The score dominance was in the good category with the percentage of 88.2% so it showed that the students' attitude towards environmental care in Muhammadiyah 2 Depok Junior High School was in the good category.

Keywords. attitude, environmental care, Muhammadiyah 2 Depok Junior High School

1 Introduction

Meeting the needs of human life is obtained by exploiting nature, both the biotic component (animals and plants) and the abiotic component (soil, water, rock and others). Various activities and activities to meet the needs of life ultimately impact on changes in the environmental system. humans have a great responsibility to protect and preserve the environment. Environmental problems are one of the complex problems in Indonesia. Lack of public awareness of the importance of the environment raises various problems. The 2018 Environmental Statistics published by the Central Statistics Agency states that throughout 2017 the provincial capitals throughout Indonesia produce more than 7 million m³ of waste

every day. Addition to this pile of garbage is not only due to the increase in the population, but also due to changes in consumption patterns, such as the habit of buying fast food [1].

Based on data from the Central Statistics Agency, published in 2018 it is written that the province of the Special Region of Yogyakarta has an Environmental Indifference Behavior Index above the provincial average in Indonesia of 0.52, while the average index for all provinces in Indonesia is 0.51 [1]. The preparation of the Environmental Indifference Behavior Index is based on the dimensions of water management, the use of private transportation, energy management, and waste management. The greater an Environmental Indifference Behavior Index value (approaching number 1) shows the higher level of environmental indifference in the region. In other words, these figures indicate that the level of environmental concern in the Yogyakarta Special Region is still lacking.

Sleman Regency is a regency in the Special Region of Yogyakarta that has a strategic position, and has a dense population. Reporting from *tribunnews.com* on January 29 2019, the Head of the Sleman Environment Office, Dwi Anta Sudibya, revealed that the Environmental Quality in Sleman was still below 60. The score indicates that the Environmental Quality in Sleman is still considered bad. Almost all rivers experience pollution, even the percentage is above 80 percent [2]. The high level of river pollution is caused by household waste, where almost all riverbank areas are used as settlements. It was also caused by industrial installation of Waste Water Management which was not well monitored.

Seeing the increasingly worrisome environmental problems, it is very necessary to have environmental management, so that the quality of the environment can be preserved. To overcome this, environmentally sound development or sustainable development (*sustainable development*) becomes important to note. One element of sustainable development, can be implemented through education.

Since 2010/ 2011 the Ministry of National Education requires all levels of education in Indonesia to insert character education in the learning process. There are 18 character values compiled by the Ministry of Education and Culture, one of which is "character cares for the environment" [3]. This means that education becomes a promising alternative tool to address increasingly worrisome environmental problems. The environmental education program implemented in schools is called the Adiwiyata program.

Research conducted by Lusiana Sri Sunarti, Isjoni, and Zulkarnaini (2017) entitled "The Effect of Adiwiyata Program Implementation on School Behavior at Adiwiyata Mandiri Schools in Pekanbaru City" [4] proves that the implementation of the Adiwiyata program in schools will affect the caring attitude of the school community, especially in students. The results showed that the environmentally sound policy variables, participatory-based curriculum and the management of environmentally friendly supporting facilities had a simultaneous effect on the behavior of school members. There is no partial influence between environmentally sound policies and environmentally based curriculum on the behavior of school members. Meanwhile, participatory-based environmental activity variables and environmentally friendly supporting facilities management variables have a partial effect on the behavior of school residents. In addition, it was also concluded that the behavior of school residents had no effect on environmental awareness at the Adiwiyata independent school in the city of Pekanbaru.

So far many schools have implemented the Adiwiyata program. Muhammadiyah 2 Junior High School Depok becomes one of the private schools in Sleman Regency, Yogyakarta Special Region that implements the Adiwiyata school policy. This school is in the middle of the urban sphere. Muhammadiyah 2 Depok Junior High School has a vision of "morality, education, achievement and environmental insight". Based on the researchers' initial

observations, Muhammadiyah 2 Depok Junior High School already has facilities and infrastructure that supports the Adiwiyata program, including a *Green house*, adequate classrooms, a beautiful school environment and a segregated trash bin. Based on preliminary interviews with administrators of the Adiwiyata program in Schools, Muhammadiyah 2 Depok Junior High School in 2015 won a 1st place award in the Adiwiyata school competition at the Sleman regency level, then continued in 2017 succeeded in getting a 2nd rank award at the Adiwiyata school in the Yogyakarta.

The success of the Adiwiyata program at Muhammadiyah 2 Depok Junior High School can certainly be realized through good school management or management. Various school activities have been carried out to support the Adiwiyata program, including *Green housees* picket, clean Friday, extracurricular activities, and even integration in learning. With these various activities, students are expected to have good environmental awareness. However, so far the extent of students' environmental awareness is unknown. Therefore, research to find out the environmental concerns of students is important to do in order to find out the extent of the successful implementation of the Adiwiyata program that has been carried out by Muhammadiyah 2 Depok Junior High School, in an effort to educate students to have a good attitude towards environmental care.

2 Method

The method applied in this research is survey research using a quantitative approach. The results of this study are quantitative data obtained through a questionnaire and then analyzed using descriptive statistical analysis. Survey methods is research conducted using a questionnaire as a research tool carried out in a populations, but the data studied are data from samples taken from these populations so that relative events, distribution, and relationships are found [5]. between variables, sociological and psychological. The purpose of survey research is to provide a detailed description of the nature of the background, as well as the characteristics that are typical of a case or incident of a general nature.

The population in this study were all students of Muhammadiyah 2 Depok Junior High School. The total number of students is 300, of which VII class is 116 children, VIII class is 97 children and class IX is 87 children. Sampling in this study was carried out by means of *proportional stratified random sampling*. The sample size was taken randomly, but it was proportional in each strata [6]. Each stratum is taken in proportion / according to proportions. In this study, the strata that were adopted were the grade level of students of Muhammadiyah 2 Depok Junior High School. By using the Isaac and Michael formula, the researchers determined 161 sample sizes with an error of 5%.

3 Results And Discussion

3.1 The Attitude of Environmental Concern of Students in Muhammadiyah 2 Depok Junior High School

Based on the distribution table of the tendency of environmental attitudes of students in Muhammadiyah 2 Depok Junior High School it can be seen that the interval number 1 with a score range of more than 117 has a frequency of 8.7% of the total sample. Interval number 2

with a score range between 90-117 has a frequency of 88.2% of the total sample. Interval number 3 with a range of scores between 63 - 90 has a frequency of 3.1% of the total sample. Whereas interval number 4 with a range of scores less than 63 has a frequency of 0 or no frequency at all. Based on the data in the table above, the average score of students' environmental care attitudes at Muhammadiyah 2 Depok Junior High School in general is at an interval between 90-117 which is included in the "good" category.

In general, the following is a table of the frequency distribution of the Attitudes of Concern for Environmental Students in Muhammadiyah 2 Depok's Junior High School :

Table 1. Distribution of the Trends in the Attitude of Environmental Concern of Students in Muhammadiyah 2 Junior High School Depok

No	X Value	Category	Frequency	Percentage
1.	$X > 117$	Very good	14	8,7%
2.	$90 < X \leq 117$	Good	142	88,2%
3.	$63 < X \leq 90$	Sufficient	5	3,1%
4.	$X < 63$	Less	0	0%
Total			161	100%

Source: Primary data processed, 2020

3.2. Attitudes of Environmental Care Learners in Muhammadiyah 2 Depok Junior High School on Every Indicator

a) Attitudes of Students 'Environmental Concern on Energy Consumption Indicators

Based on the distribution table of the tendency of environmental attitudes of students in Muhammadiyah 2 Depok Junior High School on Consumption Indicators it can be seen that as many as 31 or 19.3% of students have an attitude care about the environment in the indicator of energy consumption in the "very good" category, as many as 95 or 59.0% of students are in the "good" category, while as many as 35 or 21.7% of students are in the "sufficient" category. Based on these data it can be interpreted that the attitude of caring for students in Muhammadiyah 2 Depok Junior High School on the energy consumption indicator is in the "good" category with a percentage of 59.0%.

The distribution of students' environmental awareness attitudes towards energy consumption indicators can be seen in the following table.

Table 2. Distribution of Tendency Indicators for Energy Consumption

No	X Value	Category	Frequency	Percentage
1.	$X > 19,5$	Very good	31	19,3%
2.	$15 < X \leq 19,5$	Good	95	59,0%
3.	$10,5 < X \leq 15$	Sufficient	35	21,7%
4.	$X < 10,5$	Less	0	0,0%
Jumlah			161	100%

Source: Primary data processed, 2020

b) Attitudes of Students 'Environmental Concern on the Behavior Indicator of Disposing of Waste

Based on the distribution table of the tendency of environmental attitudes of students in Muhammadiyah 2 Depok Junior High School on the behavior Indicator of disposing of waste shows that 4.3% of students have a caring attitude towards the environment waste disposal behavior in the "very good" category, as many as 68.3% of students were in the "good" category, while 27.3% of students were in the "sufficient" category. Based on these data it can

be interpreted that the attitude of environmental care of students in Muhammadiyah 2 Depok Junior High School on the indicator of behavior of disposing garbage in the category of "good" with a percentage of 68.3%.

The distribution of students' environmental awareness attitudes towards the indicator of waste disposal behavior can be seen in the following table.

Table 3. Trending Distribution of Trash Disposal Behavior Indicators

No	X Value	Category	Frequency	Percentage
1.	$X > 29,5$	Very good	7	4.3%
2.	$22,5 < X \leq 29,5$	Good	110	68.3%
3.	$15,75 < X \leq 22,5$	Sufficient	44	27.3%
4.	$X < 15,75$	Less	0	0,0%
Jumlah			161	100%

Source: Primary data processed, 2020

c) Attitudes of Students 'Environmental Concern on Environmental Hygiene Indicators

Based on the distribution table of the tendency of environmental attitudes of students in Muhammadiyah 2 Depok Junior High School on environmental hygiene indicators shows that as many as 48.5% of students have a caring attitude in the "very good" category, as many as 44.1 % of students are in the "good" category, while 7.5% of students are in the "sufficient" category. Based on these data it can be interpreted that the attitude of environmental care of students in Muhammadiyah 2 Depok Junior High School on the indicator of environmental cleanliness in the category of "very good" with a percentage of 48.5%.

Distribution of students' environmental awareness attitudes towards environmental hygiene indicators can be seen in the following table.

Table 4. Distribution of Tendency Indicators for Environmental Cleanliness

No	X Value	Category	Frequency	Percentage
1.	$X > 19,5$	Very good	78	48,5%
2.	$15 < X \leq 19,5$	Good	71	44.1%
3.	$10,5 < X \leq 15$	Sufficient	12	7.5%
4.	$X < 10,5$	Less	0	0.00%
Total			161	100%

Source: Primary data processed, 2020

d) Attitudes of Students 'Environmental Concern on Clean Water Use Indicators

Based on the distribution table of the tendency of environmental attitudes of students in Muhammadiyah 2 Depok Junior High School on clean water use indicators shows that 76.4% of students have a caring attitude indicator environment on water use in the category of "very good", 22.4% of students are in the "good" category, while as many as 1.2% of students are in the "sufficient" category. Based on these data it can be interpreted that the attitude of caring for students in Muhammadiyah 2 Depok Junior High School on the indicator of the use of clean water in the category of "good" with a percentage of 76.4%

The distribution of students' environmental care attitudes towards clean water use indicators can be seen in the following table.

Table 5. Distribution of Indicators of Clean Water Use Indicators.

No	X Value	Category	Frequency	Percentage
1.	$X > 19,5$	Very good	123	76,4%
2.	$15 < X \leq 19,5$	Good	36	22,4%

3.	$10,5 < X \leq 15$	Sufficient	2	1,2%
4.	$X < 10,5$	Less	0	0,0%
Jumlah			161	100%

Source: primary data are processed, 2020

e) Attitudes of Students 'Environmental Concern on Carbon Emissions Improvement Indicators

Based on the distribution table of the tendency of environmental attitudes of students in Muhammadiyah 2 Depok Junior High School on carbon emissions improvement indicators shows that as many as 7.5% of students have environmental care attitudes in the "very good" category, as many as 47.2% of students are in the "good" category, as much as 44.7% of students are in the "sufficient" category, as much as 0.6% of students are in the "less". Based on these data it can be interpreted that the attitude of environmental care of students in Muhammadiyah 2 Depok Junior High School on the indicator of increasing carbon emissions in the category of "good" with a percentage of 47.2%.

The distribution of students' environmental awareness attitudes towards carbon emission enhancement indicators can be seen in the following table.

Table 6. Tendency Distribution Indicators for Increasing Carbon Emissions

No	X Value	Category	Frequency	Percentage
1.	$X > 16,25$	Very good	12	7,5%
2.	$12,5 < X \leq 16,25$	Good	76	47,2%
3.	$8,75 < X \leq 12,25$	Sufficient	72	44,7%
4.	$X < 8,75$	Less	1	0,6%
Jumlah			161	100%

Source: Primary data processed, 2020

f) Attitudes of the Student's Environmental Concern to the Fuel Usage Indicator

Based on the distribution table of the tendency of environmental attitudes of students in Muhammadiyah 2 Depok Junior High School on shows that as many as 5.0% of students have an environmental concern towards the indicators of fuel use in the category "very good", as many as 26.1% of students were in the "good" category, while as many as 43.5% of students were in the "sufficient" category and as much as 25.5% in the poor category. Based on these data it can be interpreted that the students' environmental care attitudes at Muhammadiyah 2 Depok Junior High School on the indicator of fuel use in the category of "sufficient" with a percentage of 43.5%.

The distribution of students' environmental awareness attitudes towards the fuel usage indicator can be seen in the following table.

Table 7. Trends Distribution of Indicators of Fuel Use

No	X Value	Category	Frequency	Percentage
1.	$X > 13$	Very good	8	5,0%
2.	$10 < X \leq 13$	Good	42	26,1%
3.	$7 < X \leq 10$	Sufficient	70	43,5%
4.	$X < 7$	Less	41	24,5%
Jumlah			161	100%

Source: Primary data processed, 2020

The results showed that students' environmental care attitudes at Muhammadiyah 2 Depok Junior High School, Sleman, Yogyakarta were in the very good category at 8.7%, the good

category at 88.2%, the sufficient category at 3.1% and the less category at 0, 0%. The score dominance was in the good category with a percentage of 88.2% so it showed that the attitude of caring for the students' environment at Muhammadiyah 2 Depok Junior High School was in the good category.

4 Conclusions

The results showed that among the six indicators, only indicators of fuel use were in the "sufficient" category. Therefore, there needs to be an effort to increase student awareness about attitudes to care for the environment, especially in terms of fuel savings. Indicators of energy consumption and waste disposal behavior that are in the "good" category also need to be improved so that students' awareness becomes more maximal. As for environmental cleanliness and the use of clean water categories, they need to be maintained. The six indicators must be implemented and familiarized continuously in the School so that students can have a good environmental care attitude. Based on the results of research and discussion, suggestions can be made as follows:

1. The school should continue to improve and be consistent in implementing the Adiwiyata School program to improve environmental attitudes, especially for students.
2. The results of this study can be used as an evaluation material for schools to plan Adiwiyata programs that will be implemented in schools.
3. For the government, the Adiwiyata program should be promoted continuously at all levels of education so that all students have a good environmental care attitude.

References

- [1] Central Bureau of Statistics. (2018). *Indonesia Environmental Indifference Behavior Index Report 2018*. (No. 04320.1801). Jakarta: BPS-RI / BPS Statistics Indonesia. <https://www.bps.go.id/publication/2018/09/21/c0a44f3a31ad3e85233550a0/reporting-index-2018.html>
- [2] behavior-<https://jogja.tribunnews.com/2019/01/29/kualitas-lingkungan-hidup-di-sleman-bad-almost-all-sungai-alami-pememaran>. Accessed March 1, 2020
- [3] Suyadi (2013). *Character Education Learning Strategies*. Bandung: PT Youth Rosdakarya Offset
- [4] Sunarti, S, Isjoni & Zulkarnaini. (2017). Pengaruh Implementasi Program Adiwiyata Terhadap Perilaku Sekolah pada Sekolah Adiwiyata Mandiri di Kota Pekanbaru. *Jurnal UNRI*. Vol 4, No.2. <https://dli.ejournal.unri.ac.id/index.php/DL/article/view/4512/0>
- [5] Sugiyono (2018). *Quantitative, Quantitative, and R&D Research Methods*. Bandung: Alfabeta Publisher
- [6] Jonathan, S. (2006). *Quantitative and Qualitative Research Methods*. Yogyakarta: Graha Science.