



THE RELATIONSHIP OF STUDENTS' PERCEPTIONS AND ATTITUDES TOWARDS ENVIRONMENTAL SANITATION IN PRIMARY SCHOOL NEGERI 2 KATOBENGKE, BAUBAU CITY

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Abstract

The attitude of students who throw their rubbish carelessly and students' perceptions regarding the sanitation of their environment, the lack of providing rubbish bins in classrooms and the school environment, and the lack of hand washing places with running water and soap. The aim of the research was to determine the relationship between students' perceptions and attitudes towards environmental sanitation at SD Negeri 2 Katobengke, Baubau City. This type of research is quantitative using a cross-sectional design. The sample in this study was 120 students consisting of 41 elementary school students in class IV, 33 students in class V, and 46 class VI students. Data analysis used univariate and bivariate analysis using the chi-square statistical test at a confidence level of 95% or $\alpha = 0.05$. The results of this research show that there is a relationship between students' perceptions of environmental sanitation with a significant value of $p \text{ value} = 0.001 < \alpha = 0.05$ and there is a relationship with students' attitudes towards environmental sanitation with a significant value of $p \text{ value} = 0.000 < \alpha = 0.05$. In this research, there is a significant relationship between students' perceptions and attitudes towards environmental sanitation at SD Negeri 2 Katobengke, Baubau City.

Keywords: Perception, Attitude, Environmental Sanitation

Introduction

The national health issue regarding the appropriateness of sanitation in Indonesia has resurfaced some time ago. (WHO) World Healthy Organization stated that Indonesia was ranked 3rd in countries with poor or inadequate sanitation in 2017, while in 2nd place was China and in first place was India [1]. WHO states that environmental sanitation is an effort to control all factors in the human physical environment that can cause something detrimental to health, physical and social development. Sanitation is also an effort to prevent disease that prioritizes activities in human environmental health efforts [2].

The percentage of schools that have hand washing facilities in Southeast Sulawesi is 99.70% and in the city of Bau Bau it is 98.55%, this is the lowest percentage out of 100% of districts and cities. And the percentage of schools that have hand washing facilities with good soap and running water in Southeast Sulawesi is 71.94% and in the city of Bau Bau it is the fourth highest percentage, namely 78.26% from a percentage of 100% (Ministry of Education, Culture, Research, 2020) [3].

And for the percentage of schools that have separate student toilets in Southeast Sulawesi, it is 67.44%. Schools in the city of Bau Bau occupy the 6th highest, namely 75.36% of the 100% percentage; The ratio of toilets per male student in Southeast Sulawesi is 37% and in the city of Bau

Bau 79% from 100%, this percentage is the highest compared to other districts and cities; The ratio of toilets per female student in Southeast Sulawesi is 36% and for Bau Bau City is 75% from 100%, this percentage is the highest compared to other districts and cities. The percentage of schools that have proper and separate toilets in good condition and slightly damaged for Southeast Sulawesi is 62.60% and for the city of Bau Bau, namely 72.46%, this is the highest percentage of 100% in other districts and cities (Ministry of Education, Culture, Research, 2020)

This research was taken at the location of SD Negeri 2 Katobengke, Baubau City because based on school profile data and research results it was found that sanitation facilities in schools were still inadequate because sufficient sources of clean water were not available all the time, schools did not introduce or did not participate in hand washing activities and there is also a lack of hand washing facilities, a lack of rubbish bins in every classroom and school environment, and a lack of maintenance activities and maintenance of sanitation and facilities in schools. So, due to the unavailability of rubbish bins in classrooms and in the school environment, in terms of students' behavior in throwing rubbish, some of them still throw their rubbish carelessly, some rubbish is still found scattered in the school environment [1]

Some previous research supports namely; The results of this research are in line with research conducted by (Dewi Putri, 2018) where the results obtained were P value obtained at $0.021 < 0.05$. Thus, H1 was accepted, which means there is a relationship between students' perceptions of environmental sanitation and clean and healthy living behavior in SDN Pace 1 Silo Jember District.

The results of this research are in line with research (Faujiah, 2022) using the chi square test with a significant level of p value $0.000 < \alpha 0.05$. It shows that 72.7% of students stated that school environmental sanitation was not good and 27.3% of students stated that school environmental sanitation was good. 58.2% of students have a positive attitude and 5.5% of students have a negative attitude, which means there is a relationship between attitudes and environmental sanitation.

The aim of this research is to determine the relationship between students' perceptions and attitudes towards environmental sanitation.

Method

The type of research used is quantitative descriptive with a cross-sectional design.

The population in this study was 120 students who were the research sample, namely students in grades IV, V and VI at SD Negeri 2 Katobengke, Baubau City with a total of 120 students using total sampling.

The data comes from the results of research conducted by researchers when they were in the field using questionnaires.

The research instrument used to collect data is a questionnaire or questionnaire in this questionnaire containing questions about what is being studied. Other instruments used are; stationery and laptops, namely tools used to process data obtained and used in preparing research reports; camera to document research results.

The data collection used is primary data, namely data obtained directly from respondents directly with research samples when out in the field using questionnaire measuring tools, and secondary data, namely data obtained from school profiles and several other journals that have been reviewed.

The data analysis technique used is univariate analysis, which is an analysis that aims to explain or describe the characteristics or categories of each research variable. In the research, the univariate analysis used was students' perceptions and attitudes towards environmental sanitation at SD Negeri 2 Katobengke, Baubau City, and bivariate analysis, namely by connecting the independent and dependent variables. To compare two research variables, we use the chi-square test with a confidence

level of 95% or $\alpha = 0.05$. If the p value is less than $\alpha = 0.05$ ($p < 0.05$), then it can be concluded that there is no significant relationship between the independent variable and the dependent variable.

Results

3.1 Univariate Analysis Table

a. Perception

The distribution of respondents according to perception categories at SD Negeri 2 Katobengke, Baubau City can be seen in the table as follows:

Table 1 Distribution Respondent Based on Perception Categories at SDN 2 Katobengke, Baubau City In 2023

Perception	Number of respondents	
	Frequency(f)	Percentage (%)
Positive	94	78,3
Negative	26	21,7
Total	120	100,0

Based on table 1, it shows that of the 120 respondents, 94 respondents (78.3%) had a good level of perception, and as many as 26 respondents (21.7%) had a poor level of perception.

b. Attitude

The distribution of respondents according to attitude categories at SD Negeri 2 Katobengke, Baubau City can be seen in the table as follows:

Table 2 Distribution Respondent Based on Attitude Categories at SDN 2 Katobengke, Baubau City In 2023

Attitude	Number of respondents	
	Frequency (f)	Percentage (%)
Positive	82	68,3
Negative	38	31,7
Total	120	100,0

Based on table 2, it shows that of the 120 respondents, 82 respondents (68.3%) had a good attitude and 38 respondents (31.7%) had a poor attitude.

c. Environment Sanitation

The distribution of respondents according to environmental sanitation categories at SD Negeri 2 Katobengke, Baubau City can be seen in the table as follows:

Table 3 Distribution Respondent Based on Environment Sanitation Categories at SDN 2 Katobengke, Baubau City In 2023

Environment sanitation	Number of respondents	
	Frequency (f)	Percentage (%)
Available	78	65,0
Less Available	42	35,0
Total	120	100,0

Based on table 3, it shows that out of 120 respondents, 78 respondents (65.0%) had good environmental sanitation and 42 respondents (35.0%) had poor environmental sanitation.

3.2 Bivariate Analysis Table

a. The Relationship Between Perceptions of Environmental Sanitation

The relationship between perceptions of environmental sanitation at SD Negeri 2 Katobengke, Baubau City can be seen in the following table:

Table 4 Relationship Between Perceptions of Environmental Sanitation at SD Negeri 2 Katobengke Baubau City In 2023

Perception	School Environmental Sanitation						P Value
	Less Available		Available		Amount		
	N	%	n	%	N	%	
Positive	26	27,7	68	72,3	94	100	0,001
Negative	16	61,5	10	38,5	26	0	
Total	42	35,0	78	65,0	120	100	

Based on table 4, it shows that of the 120 respondents there were 94 students who had a positive perception category, those who stated that environmental sanitation was not available in the positive perception category were 26 students (27.7%) while those who stated that environmental sanitation was available were 68 students (72.3%). Apart from that, there were 26 students who had a negative attitude category. In the negative attitude category, 16 students (61.5%) stated that environmental sanitation was not available, while 10 students stated that environmental sanitation was available (38.5%). Based on the results of the Chi-squer test, it shows a significant value where p value = 0.001 $\alpha = 0.05$, thus Ha is accepted and Ho is rejected, which means there is a relationship between students' perceptions of environmental sanitation at SD Negeri 2 Katobengke, Baubau City.

b. The Relationship Between Attitude of Environmental Sanitation

The relationship between attitudes towards environmental sanitation at SD Negeri 2 Katobengke, Baubau City can be seen in the table as follows:

Table 5 Relationship Between Attitude of Environmental Sanitation at SD Negeri 2 Katobengke Baubau City In 2023

Attitude	School Environmental Sanitation						P Value
	Less Available		Available		Amount		
	n	%	n	%	N	%	
Positive	19	23,2	63	76,8	82	100	0,000
Negative	23	60,5	15	39,5	38	100	
Total	42	35,0	78	65,0	120	100	

Based on table 5, it shows that of the 120 respondents there were 82 students who had a positive attitude category, those who stated that environmental sanitation was not available in the positive attitude category were 19 students (23.2%) while those who stated that environmental sanitation was available were 63 students (76.8%). Apart from that, there were 38 students who had a negative attitude category. In the negative attitude category, 23 students (60.5%) stated that environmental sanitation was not available, while 15 students stated that environmental sanitation was available (39.5%). Based on the results of the Chi-squer test, it shows a significant value where p value = 0.000 $\alpha = 0.05$, thus Ha is accepted and Ho is rejected, which means there is a relationship

between students' attitudes towards environmental sanitation at SD Negeri 2 Katobengke, Baubau City.

Discussion

4.1. Relationship Between Student Perceptions of Environmental Sanitation

Measurement or assessment of student perceptions is carried out to find out whether student perceptions have a meaningful relationship with school environmental sanitation. After carrying out the chi square statistical test on data regarding students' perceptions of environmental sanitation with a significance level of 0.05, the resulting p value = 0.000 $< \alpha = 0.05$ so it can be concluded that there is a significant relationship between students' perceptions of environmental sanitation. School at SD Negeri 2 Katobengke, Baubau City.

There is a relationship between students' perceptions of school environmental sanitation, because students' perceptions apply in everyday life. Perception is a response and observation made by students which comes from understanding which is influenced by new information from their environment [4]. Which means students' positive and negative responses to what they observe regarding the lack of sanitation in their environment and what is available in their school environment.

Based on table 1, out of 120 samples, there were 94 respondents who stated that environmental sanitation was not available in the positive perception category. 26 students (27.7%) said that sanitation was not available at school. Students stated that this was in accordance with what they saw and experienced, where there was a lack of availability of trash bins in the school environment. And in the classroom. With the lack of trash facilities in schools, this is not in accordance with regulations (Ministry of Education and Culture, 2018), according to (Ministry of Education and Culture, 2018) [5] Standard waste bin facilities are as follows:

- a) Segregated and closed waste bins are available in every room and other public places (school yard, canteen, etc.).
- b) Closed trash cans in women's toilets for disposing of used sanitary napkins.
- c) Waste must be sorted before being transported. The waste must be sorted into organic or inorganic waste. Organic waste can be used in a composter while inorganic waste is processed comprehensively.
- d) Every classroom must have a trash can.
- e) There is a temporary waste disposal site (TPS) at the school.
- f) Schools need to collaborate with related agencies or partners for waste transportation and management.

However, at this school there are no trash bin facilities that are provided in accordance with regulations (Ministry of Education and Culture, 2018). This can have an impact on students' perceptions and attitudes, stating that the lack of availability of trash cans can cause students to like throwing rubbish at random so that the school environment get dirty. The school environment looks dirty because of the attitude of students who like to throw rubbish at random, and there are also no separate toilets for men and women, with the lack of toilet sanitation facilities, this is also not in accordance with regulations (Ministry of Education and Culture, 2018), according to (Ministry of Education and Culture, 2018). Education and Culture, 2018) [5] The standardization of school toilet facilities is as follows:

- 1) The minimum area of one latrine unit is recommended to be 2 square meters.
- 2) Toilets for female and male students must be separate.
- 3) The activities of latrine users are not easily seen and heard from outside.

- 4) The latrine is equipped with a good quality door that can be locked and opened for the security and safety of latrine users.
- 5) The latrine location is not far and can be monitored easily.
- 6) The toilet must be clean before and after use.
- 7) Maintain the cleanliness of latrines by arranging picket schedules for both students and teachers and other school staff.
- 8) The latrine room has adequate lighting and ventilation for air exchange.
- 9) Availability of clean water, soap, closed trash cans, mirrors, clothes hangers. Hand washing places, water containers and dippers in each latrine unit, especially in the latrine for female students.
- 10) Schools ensure that latrines are accessible to students with special needs, if the school accepts students with disabilities.
- 11) Liquid waste from latrines is not immediately disposed of into the school environment, but is processed first through a Waste Water Disposal Installation (IPAL) or disable tank.
- 12) Building construction is appropriate to the size of the slope so that water does not stagnate, and is made from quality materials.

However, the lack of latrine sanitation facilities can make students' perceptions negative. Students also think that a dirty school environment will also be clean and healthy which can make the learning process comfortable. Students think that recycling waste as a craft can reduce the amount of waste [6].

Likewise, students who stated that environmental sanitation was available in the negative perception category from 26 respondents were 10 students (38.5%), students thought that school environmental sanitation was provided with waste water drainage channels, clean water channels and 1 rubbish dump, but students still think that with less trash cans, students will not throw their trash anywhere, but in fact there are still many students who throw their trash everywhere, so students think that poor sanitation will not cause disease transmission.

The results of this research are in line with research conducted by Dewi Putri [7] where the results obtained were P value obtained $0.021 < 0.05$. Thus, H1 was accepted, which means there is a relationship between students' perceptions of environmental sanitation and clean and healthy living behavior at SDN Pace 1, Silo Jember District.

4.2 Relationship Between Student Attitude of Environmental Sanitation

Measurement or assessment of student attitudes is carried out to find out whether student attitudes have a meaningful relationship with school environmental sanitation. After carrying out the chi square statistical test on data regarding students' attitudes towards environmental sanitation with a significance level of 0.05, the resulting p value = $0.001 < \alpha 0.05$ so it can be concluded that there is a significant relationship between students' attitudes and school environmental sanitation. At SD Negeri 2 Katobengke, Baubau City.

There is a relationship between student attitudes and sanitation in the school environment. Students are willing to accept and pay attention to objects in the form of questions regarding sanitation in the school environment given by researchers. Apart from that, students also responded by providing answers to the attitude questionnaire regarding school environmental sanitation. The student's acceptance and response is proven and strengthened by the results of research or attitude measurements that have been carried out [8].

Based on table 2, it shows that of the 120 samples there were 82 respondents who stated that environmental sanitation was less available in the positive attitude category, 19 students (23.2%) where there was a lack of availability of separate toilets for men and women, students could still have

a positive attitude towards environmental sanitation. There are students who can maintain a clean environment by not defecating and urinating anywhere, when students defecate or urinate in the school toilet, they always flush it, and students do not spit in the classroom.

With the lack of availability of toilet facilities, this is not in accordance with regulations (Ministry of Education and Culture, 2018)

The lack of latrine sanitation facilities will have an impact on students' attitudes towards sanitation in their school environment because students' attitudes apply in everyday life. Attitudes, like knowledge and behavior, consist of various levels. According to (Notoatmodjo, 2010) attitude means accepting, reacting, recognizing and being responsible [8].

In schools there are also not enough hand washing facilities provided, while in schools hand washing facilities must be provided, according to (Ministry of Education and Culture, 2018) where the standards for hand washing facilities in schools are as follows:

- a) At the front of each class, one unit of hand washing facilities with soap (CTPS) is provided.
- b) One unit of hand washing facilities with soap (CTPS) is provided for the teacher's room.
- c) CTPS facilities are 10 m from the toilet.
- d) There is 1 unit of CPTS facility near the canteen.
- e) The school provides group CTPS facilities with a ratio of 1 facility for 2 classrooms (1 facility has a minimum of 10 water points).
- f) Used CTPS water is stored in water catchments.
- g) There is a water storage container such as a money bucket with a tap, and there is soap.

The lack of sanitation facilities for washing hands will have an impact on the attitude of students who are less likely to maintain personal hygiene by rarely washing their hands, for example failing to wash their hands thoroughly after defecating can cause bacteria to be found on their hands, where a person can spread these bacteria when touching other people. Other things or foods that will cause students to contract worms. Worms are a disease caused by parasitic worms due to environmental factors or food that is not kept clean. Worms often appear with symptoms of abdominal pain, diarrhea, itching in the anus, nausea and vomiting. And also diarrhea is a disease that causes sufferers to defecate frequently with watery or liquid stools. Which is caused by ecoli bacteria. This bacteria is often found in the human digestive tract [9].

Likewise, students who stated that environmental sanitation was available in the negative attitude category showed that of the 38 respondents, 15 students (39.5%), where there was a trash can in the school environment, students had a negative attitude by throwing rubbish carelessly when students saw rubbish, they were indifferent when it was there. Rubbish lying in the hallway or other places in the school does not pick up the rubbish and puts it in the existing rubbish bin, which causes a lot of rubbish in the school environment, and there are clean water facilities, but there are students who do not use water as needed (students like to play in the water in the school environment). The school environment can influence the teaching and learning process and also the health of school residents. Sanitation that is not managed properly in schools can disrupt the learning process [10].

The school yard is also not given coarse cement and there are also no trees. Meanwhile, according to (Ministry of Health, 2006) the environmental requirements for a school yard are clean, beautiful, free from the growth of rats and other insects, has a strong/strong fence, and there is space for parking. It would be good if the school yard were planted with trees to make it beautiful. With this, it doesn't create heat and dust doesn't easily enter the room. And there is a yard for exercise [11]. School yards that are not given coarse cement cause a lot of dust so that when children play in the school yard they produce pollution in the form of dust which can easily trigger asthma. This air pollution is an irritant so if it is inhaled, the respiratory tract will become sensitive and narrow, thereby risking causing asthma [12].

The results of this research are in line with research (Faujiah, 2022) using the chi square test with a significant level of p value $0.000 < \alpha < 0.05$. It shows that 72.7% of students stated that school environmental sanitation was not good and 27.3% of students stated that school environmental sanitation was good. , 58.2% of students have a positive attitude and 5.5% of students have a negative attitude, which means there is a relationship between attitudes and environmental sanitation.

Conclusion

There is a relationship between students' perceptions of environmental sanitation at SD Negeri 2 Katobengke, Baubau City with a significant value of p value = $0.001 < \alpha = 0.05$, thus H_a is accepted and H_o is rejected.

There is a relationship between students' attitudes towards environmental sanitation at SD Negeri 2 Katobengke, Baubau City with a significant value of p value = $0.000 < \alpha = 0.05$, thus H_a is accepted and H_o is rejected.

Students' perceptions also support ensuring environmental health, therefore information about the importance of school environmental health can make students' perceptions positive. Students' attitudes also support good environmental sanitation management, therefore it is very important to have a positive attitude in order to achieve environmental health. Schools should plan and make efforts to fulfill school environmental sanitation requirements, and also provide lessons on environmental health science to their students.

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