

## FACTORS INFLUENCING BEHAVIOR DISPOSAL OF WASTE AMONG STUDENTS OF SDIT MADANI AL – MUJAHIDIN

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### Abstract

This study aims to identify factors that influence the behavior of throwing garbage among elementary school students, emphasizing the importance of environmental cleanliness and character formation from an early age. Using a quantitative approach with analytic survey and cross-sectional design, data were collected through questionnaires from elementary school students to measure their knowledge, attitudes, and perceptions toward the environment, as well as their waste disposal behaviors. Data analysis was conducted using descriptive statistics and bivariable analysis, including chi-square tests, to identify significant relationships between these variables. The findings are expected to provide valuable information for schools, parents, and government in designing effective interventions to enhance awareness and positive behavior of students toward waste management, thereby creating cleaner, healthier, and more comfortable school environments.

**Keywords:** Knowledge, Attitude, Behavior, Waste disposal.

### INTRODUCTION

Environmental cleanliness is a crucial aspect in creating a healthy and comfortable living environment. Awareness of the importance of maintaining cleanliness must be instilled from an early age, especially in elementary school-age children. The behavior of disposing of garbage in its place is one of the important indicators in assessing the level of awareness and concern for environmental cleanliness [1]. The issue of waste has been a global concern for a long time, along with population growth and increased consumption. At first, waste handling was done simply, such as burning or stockpiled in open land. However, over time, this practice has been proven to have a negative impact on the environment and human health. Awareness of the importance of better waste management began to grow in the 20th century, with the emergence of various technological innovations and policies related to recycling. Composting, and more sustainable waste management [2]. The behavior of littering among elementary school students is a problem that needs to be addressed immediately. Garbage scattered in the school environment can become a breeding ground for disease, pollute the environment, and create an uncomfortable atmosphere for learning. In addition, this behavior can also be carried over into adulthood and contribute to a larger waste problem in society [3]

Programs such as cleanliness pickets, classroom cleanliness competitions, and recycling activities can also increase student awareness and participation in maintaining the cleanliness of the school environment. In addition, there is a need for cooperation between schools, parents, and the community in instilling the values of cleanliness and environmental concern in students[4]. Attitude towards cleanliness is the tendency of students to process positively or negatively environmental cleanliness. A positive attitude towards cleanliness will encourage students to be more concerned about the environment and behave in a way that supports cleanliness, such as throwing garbage in its place [5] Garbage, or waste, is a residual material that results from daily human activities and is considered useless or worthless. Waste can be classified into types, such as organic waste, food waste, leaves, inorganic waste, plastic, metal, glass, and hazardous waste, electronic waste, chemicals, and hazardous waste, electronic waste, chemicals [6] A healthy school environment is a state in which schools support student development and encourage them to behave in a clean and healthy way to

avoid negative impacts. In supporting the optimal educational process, it is important for us to create a healthy school environment. Cri – the characteristics of a healthy school environment are clean, there are many plants, neat, have clean water channels, and there are many adequate trash cans [7]

## RESEARCH METHODS

This study uses a quantitative research method with a survey approach analytic survey. This approach was chosen to test the relationship between various factors (knowledge, attitudes, parental role, school facilities) and students' waste disposal behavior quantitatively. The design used is cross-sectional (slice).

This design allows collection of data for independent variables (influencing factors) and dependent variables (waste disposal behavior) at a specific point in time, making it efficient to analyze the relationships between variables without needing to follow their development over time [8].

Determination of the study location and time was carried out through a thorough analysis of national and international peer-reviewed journals (including Scopus-indexed publications). This approach ensures the selection of relevant and representative locations and the determination of the most effective time periods to observe the behavior studied, while maintaining originality and avoiding plagiarism in the collection of theoretical foundations. The study population is all elementary school students in the study area, which are heterogeneous and reflect student diversity [9].

The research sample was taken from the population using sampling techniques that are appropriate, such as purposive random sampling or incidental sampling. The sample size is determined based on statistical calculations considering the confidence level. Inclusion and exclusion criteria are clearly defined, for example, including active students who participate in teaching and learning activities, while exclusion criteria include students with significant limitations that prevent filling out the questionnaire, in order to ensuring accurate and representative data [10].

## RESEARCH RESULTS

In October, a comprehensive study on the factors that influence the act of throwing trash among SDIT Madani AL – Mujahidin students. This study involved 75 respondents as samples, and the data analysis results will be presented in detail in the discussion :

### Univariate Analysis

**Tabel 1 Knowledge**

<b>Knowledge</b>	<b>Numeric</b>	<b>Presentation (%)</b>
<b>Less Good</b>	<b>32</b>	<b>42,7</b>
<b>Good</b>	<b>43</b>	<b>57,3</b>
<b>Total</b>	<b>75</b>	<b>100</b>

Based on Table 1 above, it can be concluded that out of 75 respondents, the majority have a knowledge level in the less-good category, i.e., 32 respondents (42,7%), while the remaining 43 respondents (57, ,3%) are in the good knowledge category. This shows that the majority of respondents have good knowledge related to the studied topic.

**Tabel 2 Attitude**

<b>Attitude</b>	<b>Numeric</b>	<b>Presentation (%)</b>
<b>Negatif</b>	<b>27</b>	<b>36,0</b>
<b>Positif</b>	<b>48</b>	<b>48,0</b>
<b>Total</b>	<b>75</b>	<b>100</b>

Based on Table 4.2 above, it can be concluded that of the 75 respondents, most have a negative attitude towards cleanliness, i.e., 27 respondents (36,00%), while the remaining 48 respondents (48,0%) have a positive attitude. This shows that the majority of respondents have an attitude that supports behaviors to maintain cleanliness, especially in waste disposal.

**Tabel 3 Behavior**

<b>Behavior</b>	<b>Numeric</b>	<b>Presentation (%)</b>
<b>Less Good</b>	<b>25</b>	<b>33,3</b>
<b>Good</b>	<b>50</b>	<b>66,7</b>
<b>Total</b>	<b>75</b>	<b>100</b>

Based on Table 3 above, it can be concluded that of the 75 respondents, the majority have good waste disposal behavior, namely 50 respondents (66,7%), while 25 respondents (33,3%) show waste disposal behavior that is not good. This shows that although the majority of respondents have shown appropriate behavior, there remains one third of respondents whose behavior needs to be improved regarding the habit of disposing of waste.

### **Bivariate Analysis**

**Tabel 4 Result of Statistical Test of Relationship**

<b>Konowledge</b>	<b>Waste Disposal Behavior</b>				<b>Total</b>	<b>%</b>	<b>P-Value</b>
	<b>Not Good</b>		<b>Good</b>				
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>			
<b>Less Good</b>	10	31,3	22	68,7	32	100	<b>1,000</b>
<b>Good</b>	15	34,9	28	65,1	43	100	
<b>Total</b>	<b>25</b>	<b>33,3</b>	<b>50</b>	<b>66,7</b>	<b>75</b>	<b>100</b>	

Based on the table above it can be seen from 75 respondents with low knowledge who have bad behavior as many as 10 respondents (31.3%) and good behavior as many as 22 respondents (68.7%). Meanwhile respondents with good knowledge who have bad behavior as many as 15 respondents (34.9%) and good behavior as many as 28 respondents (65.1%). Based on the statistical test using Chi-Square, a p-value = 1.000 ( $p > 0.05$ ) was obtained, thus  $H_0$  is accepted, meaning there is no relationship between knowledge and waste disposal behavior among respondents.

**Tabel 5 Result of Statistical Test of Influence**

Attitude	Waste Disposal Behavior				Total	%	P-Value
	Not Good		Good				
	N	%	N	%			
Negative	18	60,0	12	40,0	30	100	<b>0,001</b>
Positive	7	15,6	38	84,4	45	100	
<b>Total</b>	<b>25</b>	<b>33,3</b>	<b>50</b>	<b>66,7</b>	<b>75</b>	<b>100</b>	

Based on the table above, it can be seen that among 75 respondents with a negative attitude who exhibited inappropriate behavior, there were 18 respondents (60.0%) and 12 respondents (40.0%) with appropriate behavior. Meanwhile, respondents with a positive attitude who exhibited inappropriate behavior were 7 respondents (15.6%) and those with appropriate behavior were 38 respondents (84.4%). The statistical test results using Chi-Square yielded a p-value = 0.001 ( $p < 0.05$ ) so  $H_a$  is accepted, which means there is a relationship between attitude and behavior in discarding trash.

## DISCUSSION

### Univariate Analysis

#### Knowledge

Of the 75 respondents, the majority of students have a good level of knowledge (57,3%), while 42,7% still do not understand waste management as a whole. These results show that although most students have understood the basics of waste management, there is still a gap between theoretical knowledge and practical application in the field. Students' knowledge is generally limited to basic things such as the type of waste and the general impact on the environment, but it is still weak in the implementation of real solutions such as recycling or reducing the volume of waste. This shows that the educational approach in schools has not been fully effective in forming an applicable understanding. In addition, the level of knowledge is also influenced by social factors, such as involvement in environmental activities and family educational background. Students who are active in environmental activities tend to have better knowledge [14] Good waste management behavior is not only influenced by knowledge and attitudes, but also by the support of teachers and the availability of supporting facilities. Therefore, educational programs need to be directed towards more interactive and applicative learning so that students are able to apply their knowledge in real terms in maintaining the cleanliness of the school environment [15]

#### Attitude

The results of the study of 75 respondents showed that most students had a positive attitude towards cleanliness 48 (48,0%), while 27 (36,0%) showed a negative attitude. This reflects that the majority of students have awareness and responsibility in maintaining cleanliness, especially in disposing of garbage in its place. This positive attitude shows the success of the formation of hygiene values through education and habituation in the school environment. A positive attitude towards cleanliness is not only influenced by knowledge, but also by environmental factors, such as peer support, family education, and positive experiences related to cleanliness [16] Attitude is a reflection of a person's cognitive, affective, and conative aspects; The better the knowledge and experience, the more positive

the attitude formed. Stating that students with a positive attitude tend to be more consistent in sorting and disposing of garbage correctly. However, a positive attitude needs to be supported by the availability of facilities, teacher examples, and supportive social norms so that it can be realized in real behavior in the school environment [15]

### **Behaviour**

The results of the study of 75 respondents showed that most students had good waste disposal behavior, 50 respondents (66,7%), while 25 respondents (%) still showed bad behavior. These findings show that the habit of throwing garbage in its place has begun to form, but it is not evenly distributed among all students. Behavior is a person's response to external stimuli influenced by knowledge, attitudes, and the environment. This means that even if students have good knowledge and attitudes, positive behavior will not arise without consistent habituation and environmental support [17] Some students throw garbage in their place because of personal awareness, but others do it simply because of school rules or teacher supervision. Factors such as lack of facilities, peer influence, and low motivation can also influence negative behavior. Therefore, the formation of good waste disposal behavior requires a comprehensive approach through habituation, example, and the provision of adequate cleaning facilities in the school environment.

### **Bivariate Analysis**

#### **The relationship between knowledge and garbage disposal practices in students of SDIT MADANI AL – MUJAHIDIN**

Based on the table above it can be seen from 75 respondents with low knowledge who have bad behavior as many as 10 respondents (31.3%) and good behavior as many as 22 respondents (68.7%). Meanwhile respondents with good knowledge who have bad behavior as many as 15 respondents (34.9%) and good behavior as many as 28 respondents (65.1%). These findings suggest that both the low- and high-knowledge groups had equal proportions in showing good waste disposal behavior. In other words, the level of knowledge is not always directly proportional to the behavior in the practice of littering in the school environment. The results of statistical analysis using the Chi-Square test showed a value of  $p = 1.000$  ( $p > 0.05$ ). Based on the test criteria, if the  $p$ -value is greater than 0.05, then the alternative hypothesis ( $H_a$ ) is rejected and the null hypothesis ( $H_o$ ) is accepted. This means that there is no significant relationship between the level of knowledge and the behavior of littering in SDIT Madani Al-Mujahidin students. These findings are in line with a study conducted in Pampangan Village, Ogan Komering Ilir Regency, which also showed that there was no significant relationship between the level of knowledge and the act of disposing of waste with a value of  $p = 0.249 > 0.05$  [18] Similar results were reported in a study at SMA Muhammadiyah 4 Yogyakarta, which found a value of  $p = 0.372 > 0.05$ , indicating that good knowledge does not necessarily have a direct effect on waste management behavior in schools [19] These findings also indicate a gap between the cognitive aspect (knowledge) and the behavioral aspect (real action). Many students are aware of the negative impact of waste, but have not implemented the habit of disposing of waste properly in a sustainable manner. On the other hand, there are also students who have good behavior even though their level of knowledge is low, which is most likely influenced by habituation factors, teacher examples, or social norms that apply at school. With the result of the value  $p = 0.249 > 0.05$ , it can be concluded that the level of knowledge does not have a significant influence on the behavior of disposing of student waste at SDIT Madani Al-Mujahidin. Therefore, efforts to improve waste disposal behavior in the school environment should not only focus on increasing knowledge, but also emphasize the

formation of attitudes, positive habits, and instilling environmental responsibility values from an early age.

### **The relationship between attitude and garbage disposal behavior in students of SDIT MADANI AL-MUJAHIDIN**

Based on the table above, it can be seen that among 75 respondents with a negative attitude who exhibited inappropriate behavior, there were 18 respondents (60.0%) and 12 respondents (40.0%) with appropriate behavior. Meanwhile, respondents with a positive attitude who exhibited inappropriate behavior were 7 respondents (15.6%) and those with appropriate behavior were 38 respondents (84.4%). The results of the analysis using the Chi-Square test showed a value of  $p = 0.001$  ( $p < 0.05$ ), which means that  $H_a$  is accepted. Thus, it can be concluded that there is a significant relationship between attitudes and garbage disposal behavior in students. These findings show that the more positive students' attitudes towards cleanliness and waste management, the better their behavior will be in implementing it in the school environment. Students who have a caring and responsible attitude towards cleanliness tend to dispose of garbage in its place and keep the environment clean. The results of this study are in line with the research) which found a value of  $p = 0.001 < 0.05$ , showing a significant relationship between attitudes and behaviors of waste management at SMA Muhammadiyah 4 Yogyakarta [19] Likewise with the results of the research) which obtained a value of  $p = 0.020$  ( $\alpha = 0.05$ ), which also proves that students' positive attitudes play an important role in shaping good waste disposal behavior [20] These results reinforce the theory that attitude is one of the key factors that shape behavior, where a positive attitude towards cleanliness will encourage a person to act in accordance with the values he or she believes in. Therefore, efforts to improve good waste disposal behavior in schools need to be focused on forming and strengthening positive attitudes through teacher examples, habituation, and the provision of a clean school environment and supporting environmentally caring behavior.

### **CONCLUSION**

Based on the comprehensive study conducted in October regarding the factors influencing the behavior of discarding trash among 75 students of SDIT Madani Al-Mujahidin, several main conclusions can be drawn, both from descriptive (univariate) aspects and the relationship between variables (bivariate) : Relationship between knowledge and behavior With the Statistical Test Value  $p = 0.249$  ( $p > 0.05$ ), the conclusion is that there is no significant relationship. The level of students' knowledge does not significantly influence trash-disposal behavior. This phenomenon is reinforced by the fact that students with low knowledge (32%) and good knowledge (32%) have the same proportion in showing good trash-disposal behavior. This indicates that habituation, teacher role modeling, or school norms play a greater role than theoretical knowledge. Relationship between attitude and behavior With the Statistical Test Value  $p = 0.001$  ( $p < 0.05$ ), the conclusion is that there is a significant relationship. The more positive students' attitudes toward cleanliness, the better their behavior in disposing of trash. A positive attitude is a key factor that significantly drives students to act in accordance with cleanliness values that that they believe.

This the final conclusion is that the Attitude factor toward cleanliness becomes a significant and dominant predictor in shaping good trash-disposal behavior among students at SDIT Madani Al Mujahidin. Although students' knowledge is already fairly good, knowledge alone is not enough to guarantee positive behavior without support from a positive attitude. Therefore, efforts to enhance good trash-disposal behavior in schools should focus on : Strengthening Positive Attitudes through habituation, teacher role modeling, and

instilling a sense of environmental responsibility from an early age. Providing a supportive environment (adequate facilities and strong social norms) so that positive attitudes can consistently manifest in real behavior.

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