

REVIEW OF ORGANIC AND INORGANIC WASTE MANAGEMENT AND STUDENT AWARENESS IN AL-AZHAR HIGH SCHOOL ENVIRONMENT MEDAN

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Abstract

Effective waste management in the school environment is a strategic step in shaping environmental care behaviour from an early age. This study aims to review the practices of organic and inorganic waste management in schools and assess the level of students' awareness of the importance of sustainable waste management. The method used is a qualitative descriptive study with observation techniques, interviews, and the distribution of questionnaires to school staff. However, the implementation is not consistent and is still limited to administrative aspects related to waste management, but the implementation in the field is still not optimal. The level of students' awareness of the importance of waste management is in the medium category, with the main motivation coming from the influence of teachers and school environment programs. This study suggests the need to improve environmental education in a sustainable manner and provide adequate waste management facilities as a form of support for environmentally friendly behaviour among students.

Keywords: *waste; organic; inorganic; awareness; environment; sorting*

Introduction

The problem of waste in the school environment is something that cannot be taken lightly. Every day, from learning activities, snacks in the canteen, to extracurricular activities, there must be waste produced, be it food scraps, plastic wrap, and paper. Unfortunately, waste management in many schools is still not optimal. Bins are available, but they are often not properly separated between organic and inorganic waste. Even if there is already a separate trash can, not all students understand or are used to sorting waste before throwing it away. This indicates that not only facilities need to be improved, but also students' perspectives and habits towards waste and the environment. The awareness of students themselves plays an important role. Without their care, waste management efforts in schools will be difficult to succeed. But in fact, there are still many students who are not used to sorting waste, or even throwing garbage carelessly. This could be because there is still a lack of socialization from the school, there is no program that accustomed them to caring for the environment, or maybe it is because they have not seen a good example from the surrounding environment, including teachers and school staff. Therefore, it is necessary to conduct a review of how the actual condition of waste management in schools is and how much students are aware of this. The results of this review can later be a foothold to design a more appropriate strategy for schools to become clean, healthy, and beautiful environments.

Solutions and Targets

Waste management in the Al Azhar School environment in Medan can be carried out through a structured and educational approach, so as not only to create a clean environment, but also to install environmental awareness from an early age to all school residents. One of the main solutions is to provide sorted waste bins at various strategic points in schools, such as classrooms, canteens, parks, and hallways, so that students and teachers are used to disposing of waste according to their categories, namely organic, inorganic, and hazardous waste. To support this, schools need to routinely provide education about the types of waste and the importance of sorting, both through thematic lessons, wall magazine, and school digital campaigns.

The management of organic waste such as dry leaves, twigs, and food scraps can also be done by making a simple composter from canteen food scraps and dry leaves, the results of which can be used to nourish plants in the school environment. In addition, inorganic waste such as bottles, plastics, and used food containers can be processed in a recycling way that allows plastic waste to be reused as new items. This program not only educates but also provides direct benefits to the surrounding environment.

Implementation Method

The research method used for the research is a qualitative method, the researcher can evaluate how programs such as Adiwiyata, or recycling activities are accepted and carried out in schools. Through observation and interviews, it can be found out whether the program really has an impact or is just a formality.

A. Interview

1. Mr. Yudha (Teacher)

No .	Question	Answer
1	In your opinion, is waste management in al-Azhar good?	For waste management, it is good. There are already officers, and there are already things that are done and routinely done every day. However, for sustainable waste management it does not exist yet, so here it is just collecting goods that can be recycled and goods that can be burned.
2	What is your view on the awareness of al-Azhar students in disposing of garbage in its place?	If you say that from 1-100%, only 30% still understand how to dispose of garbage in its place, if students who only throw garbage in their place, it is already 70%, but if the awareness to dispose of garbage around them is only 30%. The awareness that needs to be developed may be from the pattern of socialization and validation or sanctions, so that usually affects.
3	How often do you educate al-Azhar students about disposing of garbage in its place?	I personally quite often go to class, I usually review whether the class is clean or not, meaning that every day I do this.
4	Do you think that al-Azhar students have implemented the 3Rs (reduce, reuse, recycle) in school?	According to other fields of study or other teachers, I think it's like processing waste into fashion or turning it into compost or other art tools, I think it's already done. but if organic waste management I don't think I have changed it to 3R again, what is still that may only change inorganic waste. It is based on my observations with teachers in the field of study who are in the field of arts
5.	If you could give one suggestion to the school management to improve school waste management, what would it be?	My suggestion is that each trash can is divided into 4, namely organic, inorganic, hazardous waste, and also waste that is difficult to manage. well, what is waste that is difficult to manage or that can be managed, for example, plastic waste, and then there is Styrofoam

		because it cannot be recycled, Styrofoam must be recycled into other forms of goods. So it is impossible for him to decompose with the soil, even though it has been thousands of years. Well, the point is that there is only a problem of distributing the garbage cans that have not been divided so that when we want to manage waste, there is already a place and there is no need to sort it manually again so that it becomes more efficient
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2. Bang Hamdan (School Stewardess)

No.	Question	Answer
1	In your opinion, what do you think about waste management in Al-Azhar, is it good?	Waste management at Al-Azhar School is quite good thanks to the awareness and behaviour of students in disposing of waste in its place, significantly increasing student participation to protect the school environment from waste
2	What are the obstacles in waste management in this school?	The main obstacles are garbage scattered during the rainy season and seasonal types of waste such as leaves, twigs, and tree trunks that worsen cleanliness.
3	What type of garbage does this school get the most?	The most common types of waste are leaves, plastics, and food scraps.
4	In your opinion, is the number of garbage cans in this school enough?	The number of garbage cans is sufficient, but the separation of waste needs to be improved for management efficiency.
5	What is the most difficult waste to process?	Wet garbage such as food scraps, especially rice mixed with water, is difficult to clean and causes an unpleasant smell.
6	In your opinion, do children in Al-Azhar already practice the 3Rs in school?	The application of the 3R principle has not been maximized; reduce has been implemented, but reuse and recycle are not yet the norm among the students.
7	What are your complaints when managing waste in Al-Azhar?	The main advantage is the creation of a clean environment and students' awareness of the importance of cleanliness as part of character education.
8	Where is the collected waste transferred and what is it used for?	The collected waste is transported by truck to the Final Disposal Site (TPA).
9	What are your complaints when managing waste in Al-Azhar?	The process of transporting waste is quite tiring because the landfill is far away, requiring additional manpower for efficiency.
10	If there is an opportunity that you hope for waste management in schools, what changes do you make and why?	The hope is the existence of special officers for routine waste management and improvement of the management system to make it more efficient and sustainable.

3. Mrs. Susi (PKS 2)

Mrs. Susi said that in general, waste management at Al Azhar High School has been running quite well. Trash cans have been provided at many strategic points, and the janitors always carry out their duties on a regular basis. However, he also reminded that there are some students who are not used to and disciplined in disposing of garbage according to their type, so continuous supervision and habituation are needed so that this good habit can be embedded more strongly. Furthermore, Mrs. Susi stated that students' awareness of environmental cleanliness has begun to form well, although it is not completely evenly distributed, especially after breaks or during activities outside the classroom. For this reason, schools routinely conduct education through various activities, both during ceremonies and in the classroom guided by teachers, with the aim of maintaining cleanliness becoming a real habit, not just an appeal. Regarding the application of the 3R principle, he explained that although it is still in the development stage, several activities such as processing waste into crafts have been implemented. Mrs. Susi also hopes that in the future the number of garbage cans, especially for organic and inorganic waste, can be increased so that waste management in the school environment is more optimal.

4. Miss Farida (Teacher)

Miss Farida explained that waste management at school has been running quite well, although the number of available garbage cans still needs to be increased so that the management process becomes more effective and makes it easier for students to dispose of waste in its place. He emphasized that student awareness in maintaining environmental cleanliness is very important, so the school always provides reminders every day so that students get used to disposing of garbage properly. Many students have begun to get used to diligently managing waste, but there are still some who lack discipline, so the challenge is not only a matter of education, but rather the awareness and responsibility of each individual. In addition, Miss Farida added that the implementation of the 3R (Reuse, Reduce, Recycle) concept in schools is still in the development stage. Some waste processing activities into handicrafts or handicrafts have begun to be carried out as part of real practice education. He hopes that in the future schools can provide separate bins between organic and inorganic waste to support better sorting and management. Miss Farida also really hopes that students will be more disciplined and care about cleanliness by disposing of garbage according to the rules that have been set, so that the school environment becomes cleaner, healthier, and more comfortable for all school residents.

B. Questionnaire

From the results of the summary of existing opinions, it is clear that waste management at Al-Azhar still has a lot of homework to be improved. The most frequent complaints that arise are about behavior; It feels like there are still so many students who arbitrarily leave garbage in the canteen or leave candy wrappers scattered everywhere. This shows that awareness to dispose of and pick up garbage is still minimal. In addition to habit problems, infrastructure is also in the spotlight. Many complain because there are not enough garbage cans, and those that exist are often mixed between wet and dry garbage, as a result of which unpleasant odors spread. In fact, some even said that the garbage cans near the parking lot smelled very strong. Respondents also felt that education and socialization efforts to students were still not intensive. In fact, without a strong knowledge of the types of waste and the importance of sorting, it is difficult to change habits. They proposed several urgent improvement measures, you know. The school was asked to be more firm in reprimanding students who littered garbage. In terms of facilities, more bins must be added and most importantly, make two types of bins (organic and inorganic) so that sorting can be done. Waste transportation also needs to be regulated more regularly. Beyond that, there are more innovative ideas, such as encouraging the implementation of 3Rs (Reduce, Reuse, Recycle) and creating waste bank programs. There is even practical advice for students to be accustomed to bringing their own provisions to reduce plastic packaging waste. Although there are some positive opinions that Al-Azhar's waste management is good enough, this pile of complaints and suggestions for improvement clearly shows that we cannot be complacent yet. In essence, there needs to be hard work together to improve discipline, facilities, and education so that this waste problem can really be handled.

Results and Discussion

The results of the study show that the management of organic and inorganic waste in the Al-Azhar High School environment in Medan has been running well, especially as seen from the high awareness of students in disposing of waste in its place. Data obtained through observation and questionnaires showed that most students understood the importance of sorting waste and actively participated in keeping the school clean. The most common types of waste found in schools are organic waste in the form of leaves and food scraps, as well as inorganic waste such as plastic and used bottles.

In the discussion section, the results were interpreted by paying attention to the supporting and inhibiting factors of waste management in schools. Student awareness is one of the main factors that drive the success of waste management, especially after the existence of environmental education programs and support from teachers. However, there are obstacles in the form of a lack of adequate waste sorting facilities and challenges in managing wet waste that is still difficult to process. In addition, the application of the 3R (Reduce, Reuse, Recycle) principle is not optimal because reuse and recycling are still limited to a few types of waste. Overall, this discussion emphasizes that although waste management in schools has shown progress, there is still a need for improvement, especially in the aspects of facilities, continuous education, and more active involvement of students in waste management programs. The addition of segregated bins at strategic points, teacher and student training, and the development of a more systematic recycling program are important means to support the sustainability of more effective waste management in this school. With these measures, the school environment can become cleaner and students can foster sustainable environmentally caring behaviours

In addition, the results of the study also show that the involvement of teachers and school staff plays a very important role in shaping students' environmental awareness. Routine education programs and habituation approaches to environmental care behavior in schools have a positive impact on increasing student participation in waste management. However, it is necessary to increase the frequency and variety of environmental education methods in order to reach all students effectively and sustainably. On the other hand, the obstacles found are mainly related to the limitations of adequate waste management infrastructure, such as garbage cans that have not been clearly separated between organic and inorganic waste at several strategic points of schools. This is an obstacle in optimizing waste management and applying the 3R (Reduce, Reuse, Recycle) principle. Therefore, strengthening supporting facilities and infrastructure, accompanied by more intensive socialization, is needed so that waste management programs in schools can run more effectively and sustainably.

Conclusion

This study concludes that the management of organic and inorganic waste in the Al-Azhar High School environment in Medan has shown positive results with the existence of good student awareness in disposing of waste in its place. The active participation of students is the main supporting factor for the success of waste management in this school, especially after the existence of a consistent environmental education and supervision program. However, there are several obstacles that still need to be overcome, especially related to inadequate waste sorting facilities and wet waste management that causes odors and is difficult to clean efficiently. Another conclusion that can be drawn is that the application of the 3R (Reduce, Reuse, Recycle) principle in schools is still not running optimally. Waste reduction has begun to be implemented with the behavior of throwing waste in its place, but reuse and recycling practices are still very limited and have not become a strong culture among students and janitors. This shows the need to increase environmental literacy and develop a more systematic waste management program, with the support of adequate facilities and infrastructure so that the 3R principle can run effectively and sustainably. Overall, this study confirms that although waste management at Al-Azhar Schools is already running well, more intensive and comprehensive efforts are still needed to create a clean, healthy, and environmentally friendly school environment in a sustainable manner. Schools are advised to improve waste sorting facilities, strengthen education and socialization and provide special personnel responsible for routine waste management. Thus, awareness and behaviour of caring for the environment among students are expected to continue to grow and make a real contribution to the success of waste management in this school.

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