

**HABITUATION MODEL OF IMPLEMENTING ENVIRONMENTAL EDUCATION IN ELEMENTARY SCHOOL****Zaenuri\*<sup>1</sup>, Sudarmin<sup>1</sup>, Y. Utomo<sup>2</sup>, E. Juul<sup>3</sup>**<sup>1</sup>Faculty of Mathematics and Natural Sciences, Universitas Negeri Semarang, Indonesia<sup>2</sup>Department of Chemistry, Universitas Negeri Malang, Indonesia<sup>3</sup>Faculty of Education and Social Studies, VIA University College, Denmark

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The purpose of this study is to analyze the implementation of environmental education in Elementary School. The study was conducted at SDN 1 Kota Banda Aceh. The research subjects are school residents (students, teachers, education personnel, principals, and school committees). This research is designed using a qualitative approach. This study is focused on the implementation of environmental education in primary schools. Data collection uses observation sheet instrument (observation), focused interview, and Focus Group Discussion (FGD). The research data were analyzed descriptively. The results show that the implementation of environmental education can be realized in habituation to maintain personal hygiene, class cleanliness, and worship together according to his beliefs and sports.

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**Keywords:** environmental education; habituation; personal hygiene; class cleanliness; worship together**INTRODUCTION**

Environmental damage is unlikely to be prevented or avoided, but it can be systematically controlled by implementing sustainable development, supported by Education for Sustainable Development (ESD). ESD can be introduced in various levels of education, either through intra or extra curricular activities. One solution to instill character and sensitivity on the socio-cultural, environmental, and economic aspects in order to guide students in the right environment is the Education for Sustainable Development approach abbreviated as ESD (Rohmah, 2014). ESD is developed in several countries that have local problems which bring impact globally (Segara, 2015). ESD is equivalent to environmental education (Nomura, 2009). According to Suduc, et al., 2014, ESD is an appropriate educational program to educate people early to

reduce human dependence on the natural and social environment.

Afandi (2013) stated that environmental education by utilizing the school environment as a learning resource would create a green school. According to Ozden (2008), many people believe that environmental education is the most important factor to prevent environmental problems. Research by Prabawani et al. (2017); Bahri, (2016) showed that by applying ESD, elementary school students in Semarang City have a better understanding in the pillars of learning nature, social, and ego sustainable development. Students who are active in the school must also get an education about the character of environmental care in order to play an active role as their parents (Prasetiyo & Suyanto, 2013).

Various parties (government, companies, and NGOs) have launched ESD programs. Listiawati (2013) pointed out that WWF instills love for the natural environment and biodiversity, trains teachers to incorporate these values into

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the curriculum, as well as school governance, called the love triangle (love to God, to fellow man, and to nature). The proclaimed program is related to three perspectives in life namely social, environmental, and economic aspects. The details are presented in Table 1.

**Table 1.** Program Institutions and Implementation in School

Board of Trustees	Program	Implementation in School
KLH	Adiwiyata	1. Social: health 2. Environment: planting tree, 3. Economy: Sorting and utilizing garbage
Secretary of Directorate General of Elementary Education	Education for Development, Development and/or Sustainable Development (PuP3B)	1. Environment: planting, cleanliness (toilets) 2. Socio-Culture: working together in the inner and outer environments of schools, libraries, School Health Efforts 3. Economics: compost processing, honesty canteen 4. Socialization for provincial and district/ municipal stakeholders. 5. Creating 33 model schools (SD and SMP) from 31 provinces.
Directorate of Elementary Education Development, Ministry of Education and Culture	SDBS (Clean and Healthy Elementary School)	1. Working policies and programs Facilities and infrastructure Instilling clean and hygienic behavior Bolck grand 3 SD in each district/city throughout Indonesia
Center for Policy Research, Department of Research and Development, Ministry of Education and Culture	Integrating ESD values into learning process	Socio-Culture Human rights (right to self-development), security, health, development of character Environment Reboisation Economics: entrepreneurship
WWF	ESD Program in School	Training and workshop: ESD, entrepreneurship, Writing skills  Help schools become ESD dream schools: school management, curriculum, school participation in communities and communities in schools, Infrastructure, school planning and planning, school self-evaluation, and school planning activities for six months or 1 year  Coordinator of ESD implementation in schools. Create a mulch module on environmental maintenance and disaster mitigation.
Sekolah Sobat Bumi (Pertamina Foundation)	Program management and utilization of SDA	Biogas: utilization of livestock waste and industrial waste into gas (biogas and bioethanol) for cooking. Source: Listiawati (2013), edited

Environmental education in Elementary School is an integral part of ESD. The "output" of sustainable development agents can be optimally generated by reforming the grading of cognitive, affective, and psychomotor aspects. Knowledge and understanding of the concept of sustainable development are important, but planting attitudes toward the meaning of sustainable development (right and whole) is no less important.

Attitude is a reaction or special response to a stimulus that comes from a person's perception of his environment. Theoretically, perception is divided into two types, namely personal perception and social perception. Personal perception is a process of impression based on observation or reasoning on a matter that influences on physical and psychological. Social perception is a process of impression formation, opinion or feeling to something that involves the use of directed information.

The intention is formed as an interaction of attitudes toward objects to behave and subjective norms about behavior. This is in line with the Medan Theory developed by Lewin (Helmi, 1999). According to Lewin, behavior is a function of the environment (E) and organism (O). Mathematically formulated as:

$$B = f(E, O)$$

Lewin's theory accommodates two opposing views, namely human assessment from internal state and social construction or social engineering. Data collection uses observation sheet instrument (observation), focused interview, and focus group discussion (FGD). Research data were analyzed descriptively.

## RESULTS AND DISCUSSION

Habituation of healthy living begins with the activity of reformulating the vision and mission of the school, which involves all citizens of the school, openly and democratically. The vision of SDN 1 Kota Banda Aceh is "The realization of graduates who have a noble character, discipline, excellence in academic and non-academic achievement, intelligent and responsible and environmentally oriented toward Green School." SDN 1 Kota Banda Aceh Mission is as follows.

- a. Create a learning environment based on noble values.
- b. Develop the potential of students' intelligence through active, creative, effective and fun learning.

- c. Help students to know their potential optimally.
- d. Foster the spirit and soul of discipline and a sense of responsibility towards the task and obligations.

e. Realize environmentally- friendly schools towards Green School. All the citizens of the school voluntarily and openly bind themselves in a declaration to carry out character education. One character developed is Environmental Care, as Figure 1.

Habituation to maintain personal hygiene (hair, mouth, and teeth, nails, ears, body and clothing), included washing hands before and after meals, becoming good example in a clean and healthy life behavior performed routinely in various forms of School Health Efforts, especially small doctors, as Figure 2.

Habituation keeps the class clean (there are a picket officer and active duty) and the environment, including throwing garbage in its place (organic/non-organic waste), involved in waste management (reduce, reuse, recycle), actively participate in environmental education in school activities (consecrated work, health day, environmental day, etc.), and are involved in the planting and cultivation of crops in schools as shown in Figure 3 and 4.

Habituation of worship together by his beliefs and sports involving all the citizens of the school and other school cultures is presented in Figure 5.

Successful habituation of healthy living as an implementation of environmental education requires careful planning by including financing and involving schoolchildren. It is formulated in vision, mission, and commitment (Figure 1) and other stakeholders such as various government and private agencies. Socialization of the program is a very important stage of habituation. This is in line with Landriany's (2014) study which demonstrates that the vision and mission towards environmental care will create responsible schoolchildren in the effort to protect and manage the environment through good school management to support sustainable development.

SDN 1 Banda Aceh completes various facilities for optimizing healthy living habituation. To achieve habituation to maintain personal hygiene (Figure 2), the school cooperates with Puskesmas and Department of Health which performs routine checks and coaching. Little doctors have sufficient training, so they have the ability to provide first aid before being referred to a Puskesmas. The little doctors are also in charge of checking whether or not there are mosquito larvae in the school bathroom, water basin and the

community around the school. School facilities to support healthy habituation are as follows: (a) Provision of teachers' books on health education; (b) Provision of School Health Efforts space; (c) Provision of minimal School Health Efforts equipment includes: (1) sleeping bed; (2) weight scales, height measuring instruments, Snellen charts, and thermometers; (3) medicine cabinets, first aid kit and simple medicines (wound medicines, oralites, paracetamol, etc.)

The optimization of habituation to maintain the cleanliness of the class is done by forming a picket officer in each class who is in charge of maintaining the cleanliness of the class, doing the work of devotion, engaging in the planting and maintenance of the plants in the surrounding environment. In each classroom, there is a closed, organic and inorganic trash can, and there is a hand-wash place with clean running water equipped with soap and a clean cloth.

SDN 1 Banda Aceh formed an Environmental Police consisting of 5th and 6th graders. Environmental Policemen toured the school du-

ring break times. They are in charge of monitoring and reminding the younger siblings who throw garbage recklessly, picking it up and throwing it in the available bins (Figure 4). In open spaces, a dumpster is provided, covered and given a description (organic/inorganic, wet/dry, and pictorial). Collected plastic bottles are handed over to third parties for recycling (reduce, reuse, recycle). They have the slogan "LISA", "Lihat Sampah Ambil".

The interaction of police environment with students runs very effectively, affecting their interest in behaving environmentally, in harmony with the research results of Cheng and Monroe (2010). Amini's research (2015) shows that learning outside the classroom-based environmental education is effective for improving student learning outcomes and attitudes towards environmental care. Habituation to maintain cleanliness is also applied in the school cafeteria. SDN 1 Banda Aceh provides facilities and infrastructure of school canteens that meet the following health requirements.

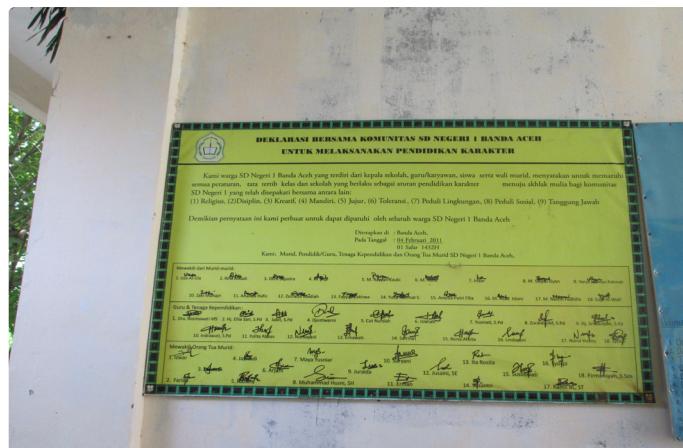


Figure 1. Declaration of Character Education Implementation



Figure 2. Habituation of Self-Cleanliness



1. The location of the cafeteria/school stalls is at least 20 m away with TPS (temporary garbage collection).
2. The ceiling looks clean, no dust, no cobwebs, no leaking marks, not broken, not peeling, and easy to clean.
3. Wall looks clean, no dust, no cobwebs, no cracks, and easy to clean.
4. The floor looks clean, not slippery, no garbage strewn, not cracked, and easy to clean.
5. Mebeulair in the form of dining tables and chairs look clean, no dust, and in good condition.
6. School cafeteria equipment looks clean, no dust, not damaged, not easily rusty.
7. There are organic, inorganic, and waste-covered organic trash cans
8. There is a hand wash site with clean running water equipped with soap and a clean clot
9. There is adequate ventilation.
10. Cafeteria looks bright, clean, and neat.
11. Food is stored in a closed place and separate from the finished food.
12. Storage of foodstuff and food according to the recommended storage temperature.
13. Simple food processing (heating, steaming and baking) looks clean, tidy, closed. There are sufficient lighting lights and away from the bathroom/WC.
14. Place of food presentation always closed, clean, and not rusty.
15. Food serving time not more than 4 hours, especially high protein and food with coconut milk is no more than 2 hours.
16. Cooking and cutlery processing equipment is stored in a clean and closed storage area.
17. Washing and cooking utensils look clean with available running water and soap.
18. Around the washing place, there is no stagnant water.
19. The canteen waste disposal channel is made of waterproof and closed material.
20. Hygiene kits (broom, mop, bucket, soap, etc.) are available in the cafeteria
21. Food and beverage packaging sold is undamaged, not expired, contains no hazardous chemicals that are prohibited, and does not use food additives exceeding the maximum limit (including salt, sugar, and fat), and hazardous materials.
22. Clothes keepers clean, tidy, and use brightly colored apron using headgear, clamps, gloves, and masks (if needed) and not talking-sneezing/coughing at the touch of food.



Figure 3. School Picket



Figure 4. School Trash Bank



Figure 5. Habituation of School Culture  
SD Negeri 1 Banda Aceh, Aceh Province

SDN 1 Banda Aceh has a bathroom/WC and a separate urinal and equipment between the male/female students as required and bathroom/WC for teachers and employees. Water does not stagnate in the school environment due to the presence of sewerage channels that meet health requirements such as watertight, covered, and the water can flow smoothly. School also builds bio pores in several locations.

Habituation of worship together according to his belief embodied in praying dhuhur congregation and pray dhuha periodically. SDN 1 Banda Aceh establishes Saturday as the day of creativity. On Saturday there is no lesson, but it is filled with various sports and art activities, involving all the citizens of the school. All parents are invited to do a healthy walk together, then witness the children's art and cultural attractions. Implementation of activities is managed by parents. The committee opened the donor wallet voluntarily. The donation results are publicly announced, posted on the school's information boards. The collected funds are used to help disadvantaged students and support various school activities.

## CONCLUSION

Based on the results and discussion, it can be concluded that the implementation of environmental education can be realized in 3 (three) habituation, namely (1) maintaining personal hygiene, (2) class cleanliness, and (3) worship together according to his beliefs and sports. These three types of habituation will work optimally with the strong support and commitment of all school members: teachers, education personnel, principals, and school committees.

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