



SOCIAL STUDIES LEARNING THROUGH ZERO WASTE LIFESTLY JOURNAL PROGRAMS TO DEVELOP STUDENT ECOLITERACY

Sartika Oktaviani
sartikaoktavianii@gmail.com
Universitas Pendidikan Indonesia

Nana Supriatna
nanasup@yahoo.com
Universitas Pendidikan Indonesia

Abstract : This article describes social studies learning through a zero waste lifestyle journal program that can develop students' ecoliteration. This paper focuses on indicators that exist in zero waste so that when implemented into a learning program students can develop ecoliteration (caring attitude towards the environment). Zero waste is a lifestyle concept that can overcome the problem of waste, by reducing waste production. One of them is by applying the 3R principle (Reduce, Reuse, Recycle). The zero waste lifestyle journal program becomes a stimulus for students as a form of habituation in encouraging student ecoliteration. Zero waste lifestyle is used as a form of conscious effort in dealing with environmental problems. Some research results show that the application of zero waste has an influence on changes in attitude 1) accepts 2) response 3) respects 4) is responsible for the zero waste program.

Keyword : social studies learning, zero waste lifestyle program, Eco literacy

I. INTRODUCTION

In the 21st century we will be faced with an age of information, digitalization, technology with various problems in it. Problems that will arise are quite simple but have a huge impact if they are not addressed immediately. One of the problems that is now in the spotlight is consumer behavior that can have an impact on natural resources and the surrounding environment. This raises a habit that will have an impact sooner or later. Globalization is not only a trend but also a disaster for the environment. The more consumptive society, the greater the production of goods that use plastic or materials that cannot blend naturally, this can damage the environment.

Based on data from the Ministry of Environment and Forestry reported in *Pikiran Rakyat* (Friday, March 31, 2017) the total waste in Indonesia reaches 187.2 million tons per year. The increasing number of population density and the limited land to accommodate the remaining consumption is one of the factors causing the volume of waste to continue to mount. A World Bank note on (June 2013) in a report entitled *What a Waste; A Global Review of Solid Waste Management* that total solid waste produced worldwide reaches around 1.3 billion tons per year. In 2025, the volume of world waste is projected to almost double, which is close to 2.2 billion tons per year. The latest data was delivered by Achim Steiner, Executive Director of the United Nations Environment Program (UNEP), in his report entitled "Valuing plastic; the Business case for Measuring, Managing and Disclosing Plastic use in the. The facts and data above cannot be ignored without solutions and concrete actions to prevent environmental damage.



In accordance with the objectives of Social Studies Education, so that students can make a decision in solving problems and becoming good and democratic citizens. Social studies education with faced problems related to waste certainly provides solutions that are implemented into learning. For this reason, social studies education through learning is expected to foster an ecoliteracy towards students.

II. LITERATURE REVIEW

The rapid economic growth in Indonesia has resulted in changes in people's lifestyles. One form of change that occurs is increasing consumption carried out by humans, lifestyle changes form a consumptive attitude in the community. In order to reduce the impact of consumptive attitudes on society, one of its efforts is to foster ecoliteracy to students. Through programmed learning, of course through zero waste journal will form a habit or stimulus to children, so it is expected that in the future it will form an environmentally caring attitude.

2.1 Social Studies

In 1993, the NCSS formulated the following social studies:

Social studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated systematic study drawing upon such disciplines as anthropology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences.

Furthermore regarding Social Studies, The Committee on the study of the Social Education Association and the Reorganization of Secondary Education in 1916 gave definitions: those studies whose subject matter relates to the organization and development of human society as members of social groups (Arthur Binning, 1952: 2 in Hanny Et. Al, 2011) Paul Mathias (1973: 20) The study of man in society in the past, present and future, social emerges studies as a subject of prime importance for study in school.

Here are several insights about the social sciences that were put forward by experts. Norman MacKenzie (1996:7), for example formulates social science disciplines as "all academic disciplines which deal with men in their social context", meaning all academic disciplines related to humans in a social context. Bernard Mausner (1979:1) asserts that "the social sciences represent yet another attempt to solve the puzzles inherent in the situation of man in society." Harold Ksincaid (1996:6) suggests "Social Science should describe how institutions relate to and influence one another, how do social structures develop and change, and how do those institutions and structures influence the fate of individuals."

2.2 Zero Waste Lifestyle

Zero waste lifestyle is a concept related to waste problems caused by economic growth, zero waste lifestyle is often used as a form of conscious effort in dealing with environmental problems. According to Palo Alto in the Zero Waste Strategic Plan (2005), zero waste is a philosophy that encourages redesign of resources so that they can be reused and no garbage is disposed of in trash or incinerators. For this reason, with zero waste lifestyle, it can overcome the garbage problems and environmental problems caused by garbage. The same is expressed by Zaman, A. U. and S. Lehmann



(2011) that zero waste is done to avoid and reduce the amount of waste and natural resources used, as well as to conserve and restore natural resources that have been affected by waste.

Zero waste not only encourages the recycling process but also aims to rearrange the design, product and distribution in the prevention or reduction of the amount of waste (Zaman, A. U: 2014). Zero waste is an alternative in overcoming the problem of increasing the amount of waste and reducing natural resources. One of the successful cities as a city with a zero waste concept is Boras City, located in Sweden, with innovation and development in the field of technology for waste sorting, biotreatment and thermal engineering, landfill use can be reduced by 10% and finally reached almost 0%. One key to the success of this city is the application of the zero waste concept in schools that teach children about the concept of sorting waste and the waste management system (Rajendran, et al. 2013). From the facts and theories revealed by Rajendran, et al., It shows that implementing zero waste can begin with waste management that can be done in schools to foster a sense of love for the environment, especially in urban schools. This is in line with Collado et al. (2015) "For urban children, daily contact with effective means toward encouraging pro-environmental attitudes." Waste management in Indonesia is regulated in Law No. RI. 18 of 2008, UURI No. 18 regulates general provisions, scope, duties and authority of the government to the implementation of waste management. So that implementing zero waste is the same as helping to realize the laws that apply in Indonesia.

The scope of zero waste consists of several concepts that have been developed as a sustainable waste management system. Some of these concepts are avoiding, reducing, reusing, redesigning, regenerating, recycling, repairing, reproducing, reselling and redistributing waste sources (Prajati, 2017). Therefore, the zero waste strategy in practice can develop well. Zero waste not only encourages the recycling process but also aims to rearrange the design, products and distribution in the prevention or reduction of the amount of waste.

Research conducted by Kolbe (2015) shows that students who have more knowledge about waste management have a desire to manage waste in a better way, such as recycling waste. While students who have a lower level of knowledge need orders from the teacher to recycle waste. The results of this study indicate that there is a relationship between the level of knowledge and actions taken by students related to waste management. The application of zero waste in schools must begin to be applied in order to create an environmentally caring attitude by understanding how to recycle waste, dispose of waste according to its type and many other things in accordance with the zero waste concept.

As quoted by Komari, A. S (2014) individuals are said to implement the zero waste lifestyle program if they are able to fulfill the following indicators:

- a) Emphasize waste production so that the resulting waste is able to approach the zero point with a very minimal amount.
- b) Separating waste into different types.



- c) Make a special disposal site in accordance with the government's recommendations stated in PP No. 81 Article 17 which separates waste into five groups.
- d) Recycle waste into particles that are useful for the continuity of biotic and abiotic life, as well as beneficial to the income of the local community both in terms of beauty and well-being.
- e) Using items multiple times and replacing all perishable items into durable, durable, and usable items.
- f) Bring your own container when shopping to reduce the consumption of waste produced from plastic or shopping bags.

Based on these criteria, if it has been carried out from the series of activities, the person has implemented a zero waste lifestyle.

2.3 Ecoliteracy

Increasing environmental awareness is an important thing to develop in education. Students are said to have attitudes when they have taken the same action in the same situation, this happens repeatedly (Degeng: 1989). Ecoliteracy was adapted from Laroche et al. (2001) is knowledge about the environment. According to Laroche et al (1996), individual knowledge about the environment plays a role in influencing behavior, namely providing a subject with knowledge of actions and issues that can shape attitudes and intentions. Habits carried out will form a sense of care and attitude towards the environment that is applied in everyday life.

Ecoliteracy according to Capra (2002) is a rule and values for the environment and awareness of the importance of the environment. Intelligence and environmental values are important to be taught to students, as explained by Supritana (2016) that ecological intelligence is complex. This intelligence is supported by cognitive, affective (social and emotional), and psychomotor elements. The desire to protect the environment is based on knowledge about the environment. Awareness to save the damaged environment is based on affective aspects, while actions to preserve the environment describe the psychomotor aspects. Emil Salim (in Neolaka: 2008) states environmental awareness as follows:

Environmental awareness is an effort to foster awareness so that not only know about waste, pollution, reforestation and protection of endangered species, but more than all, it raises awareness of the environment of humans to love the homeland.

Awareness of the environment will encourage individuals who love the environment by not doing things that are destructive, not only understanding science but also in the form of attitudes.

III. RESULTS AND DISCUSSIONS

Basically the purpose of IPS education is to educate and provide basic skills to students to develop themselves according to their talents, interests, abilities and environment, as well as various provisions for students to continue their education to a higher level. Based on the understanding and purpose of social studies education, a learning pattern is needed that is able



to achieve that goal. Besides being expected to have knowledge students can also develop skills in various aspects of life.

IPS learning is an activity to change the characteristics of students before learning IPS (input) into students who have the desired characteristics (output). Therefore, the first step in planning social studies is the formulation of the learning objectives.



For this reason, social studies education can also include values that will become a habit of caring for the environment (students as an ecoliteracy output).

With this, the author offers innovation related to the zero waste lifestyle concept into learning in the form of a series of activities written in the journal as a report on student activities. The curriculum objectives include four competencies, namely (1) spiritual attitude competence, (2) social attitudes, (3) knowledge, and (4) skills. This competence is achieved through the intracurricular and/or extracurricular learning process.

The core competencies and basic competencies used in the zero waste lifestyle journal program are class VIII, KI 2: respecting and living honest, disciplined, responsible, caring (tolerance, mutual cooperation), polite, confident behavior, in interacting effectively with the social and natural environment within its reach and existence, KD 2.3: shows caring behavior, mutual cooperation, responsibility in participating in overcoming environmental problems. From the KI and KD the teachers and students together can create a program as a form of habituation in fostering an environmentally caring attitude that is packaged by adjusting the conditions and creative thinking of students. This program prioritizes habituation to caring for the environment, thinking creative, as well as entrepreneurship these three values are implemented in a single program that is a zero waste lifestyle journal.

Self-actualization can also make encouragement for students to be more enthusiastic about working on the program, appearing in front of caring for the environment with the zero waste lifestyle concept will look cool, present and especially important can be made content for social media. In this case, we can shape the mindset of students that implementing this zero waste lifestyle concept is one form of cool and current self-actualization. So that students with enthusiasm and develop creative ideas in carrying out learning through a media zero waste lifestyle journal.

Bernie Trilling and Tharles Fadel (2009, p. 47) there are "the knowledge and rainbow skills" mentioning in the meaning of rainbow skills there is a learning and skill to innovate by making products and exploring potential that will be appreciated by the environment, skills in the media information and technology, career development skills by exploring the potential of students and training as early as possible. The three things can be implemented in one learning program activity.

The zero waste lifestyle journal program is organized into three structured stages in one evaluation media, namely the journal that will be made by each student.

The program that will be carried out is:

1. Individual: journal of zero waste lifestyle



Report on activities in reducing the use of plastic and good consumer.

- a. Emphasize waste production so that the waste produced is able to approach zero point with a very minimal amount. (carrying drinking bottles, shopping bags etc)
 - b. Separating waste into different types.
2. Group: making products that have economic value
 - a. Use plastic waste and other garbage to make crafts. (use back unused items into other uses / sell items that are not used)

The teacher provides a stimulus to the child in the form of training provided by an expert in recycling that has economic value. So that the child can be inspired in making the project given by the teacher. Hold a bazaar that sells items that are already unused, and waste recycling products. This program will be collaborated into one major annual event at the school, namely: IPS Festival

Each activity both individual and group is recorded in a journal as a form of report (evaluation). The final result of the journal is that children make generalizations from each activity report so that it becomes a writing that will later be recorded as a zero waste lifestyle journal program to foster an environmentally caring attitude towards students in social studies learning. For the journal format itself, like a diary. So that the child can write freely according to the child's ability. Journal reports use the following format:

- a) What I often do that hurts the earth
- b) In this case, students will write down the behavior or consumption they do that is not in accordance with the concept of zero waste or damage the environment
Example: littering, buying aqua bottles every day and so on.
- c) Things I have to reduce and I have to do
- d) Students will make targets for what they have to do and must be reduced in maintaining the environment
- e) My activities Report on student activity as an evaluation material from habituating caring attitude to the environment which is packaged into a zero waste lifestyle journal program.
- f) Confide in me
- g) One special format given for children to evaluate themselves and tell stories or to the teacher. In this format, children are free to submit complaints or positive attitudes related to the program or outside the program.

IV. CONCLUSION

The success in improving students' abilities in the learning process, especially regarding the environment is certainly not free from the use of models, strategies, approaches, methods and learning media. So that students in the learning process through the program zero waste lifestyle journal become a stimulus to students as a form of habituation in fostering an attitude



of care for the environment of students (ecoliteracy). For this reason, learning is needed which will affect the attitude of care for the environment of the students (ecoliteracy).

Zero waste lifestyle is a concept related to waste problems caused by economic growth, consumption of people who are currently consumptive. The concept of zero waste lifestyle is a concept of life that is used as a form of conscious effort in dealing with environmental problems. It is expected that in the implementation of the program students can increase motivation, improve problem solving skills, improve collaborative skills, improve skills in managing resources. Awareness of the environment will encourage individuals who love the environment by not doing things that are destructive, not only understanding science but also in the form of attitudes.

REFERENCES

- Allen, C., Gokaldas, V., Larracas, A., Minot, L.A Morin, M., Tangri, N., Tyler, B. dan Walker, B. (2007). *On and advice/schools/resources/waste-module-resources*
- Bernie Trilling and Charles Fadel. (2009). *21ST Century Skills*. USA : Jossey-Bass
- Buchari Alma, dkk., (2011). *Pembelajaran Studi Sosial*, Jakarta: Alfabeta
- Buchari Alma dan M. Harlasgunawan Ap. (2013). *Hakekat Studi Sosial (The Nature of Social Studies)*. Bandung: Alfabeta
- National Council for the Social Studies. (1994). *The Curriculum Standards for Social Studies*. Washington DC. : NCSS
- Palmer, Joy & Neal, Philip. (1994). *The Handbook Of Environmental Education*. New York : Routledge.
- Sapriya. *Pendidikan IPS: Konsep dan Pembelajaran*. 2011. Bandung: Remaja Rosdakarya.
- Somantri, Muh. Numan. (2001). *Menggagas Pembaharuan Pendidikan IPS*. Bandung : Remaja Rosdakarya & PPS, FPIPS UPI.
- Sapriya, Sadjaruddin Nurdin dan Susilawati. (2008). *Konsep Dasar IPS*. Bandung,: Lab. PKn UPI
- Supriatna, N. 2016. *Ecopedagogy Membangun Kecerdasan Ekologis dalam Pembelajaran IPS*. Bandung: Remaja Rosdakarya.
- Collado, S., dkk. (2015). Effect of frequency and mode of contact with nature on children's self-reported ecological behaviors. *Journal of Environmental Psychology*, (41), 65-73
- Kolbe, K. D. (2015). Knowledge, Attitudes and Behaviour Regarding Waste Management in a Grammar and a Comprehensive School in England Results from a School Questionnaire. *Journal of Teacher Education for Sustainability*, 1 (17), 58-71
- Rajendran, K., Bjork, H. dan Taherzadeh, M. J., Borås. (2013). A Zero Waste City in Sweden. *Journal of Development Management*, 1 (1), 3-8.
- Zaman, A. U. dan S. Lehmann. (2011) Challenges and Opportunities in Transforming a City Into a Zero Waste City. *Challenges*, (2) 73-93.
- Zaman, A. U., & Lehmann, S. (2011). City Culture and Society Urban growth and waste management optimization towards zero waste city. *City, Culture and Society*, 2 (4), 177-187.