

## Social Action Model of Education Waste Treatment on Domestic Level in Way Huwi Village, Lampung Selatan

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### Abstract

This research study is about the education of solid waste treatment model on domestic level through social action activities in relation with human resources development at Way Huwi village, South Lampung. The specific goals to be achieved is to understand and discover: (1). Forms of community participation on waste problems at Way Huwi village, South Lampung, (2). Formulate hypothetical model of social action education of solid waste treatment on domestic level. The concepts and theories used are community empowerment and Education for Sustainability Development (ESD) as the grand teori. This research used a qualitative approach with case study design on waste recycling. Data were collected with interview, observation and documentation. Sources of data were obtained from the community of Way Huwi Village in South Lampung. The data analysis will through the process of data reduction, data display and conclusion. The results of the research are: (1) The forms of community participation in waste problem is by burning the waste, paying retribution and participating in the activity of solve the waste problem in their environment, (2) hypothetical model formulation of social action of waste treatment education on domestic level which obtained based on the results of community identification to resolved waste problem as well as the needs.

**Keywords:** *social action, waste treatment education*

### A. Introduction

Way Huwi Village of South Lampung is a transitional village, which is geographically near to Bandar Lampung city than to the capital of Lampung Selatan district, Kalianda. The location of the village not far from the city of Lampung Province and this is what causes the growth of Way Huwi village very fast in the last 5 years. The total population of Way Huwi villagers in Jati Agung sub district in 2010 reached 12,087 people in 2,857 households, consist of 6,429 men and 5,658 female. This number is far different from the 1980's census which only ranged from 3,542 people, this is caused the Way Huwi village is still isolated.

**Table 1. Total Population of desa Way Huwi**

| No | Year | DESA WAY HUWI    |
|----|------|------------------|
|    |      | Total Population |
| 1  | 1980 | 3.542            |
| 2  | 1990 | 4.984            |
| 3  | 2010 | 12.087           |
| 4  | 2011 | 31.760           |

Source : Secretary of Desa Way Huwi's interview on March, 8, 2018

The high growth population is affected by several things such as the open access of transportation to Way Huwi village and the existence of KORPRI Housing in 1985. Formerly Way Huwi village is an isolated village because there is no access road from Way Huwi village to Bandar Lampung city, but now it becomes an open village which easy to reach. This factor is the cause of the migrants from outside South Lampung Regency to become a permanent resident (migration) of Way Huwi. Even more with the establishment of the Institute of Technology Sumatra (ITERA) in 2015, which is located about one kilometer from the village. This of course made the immigrant population in Way Huwi village increased. According to the Secretary of Way Huwi Village, in 2017 the total of registered population of both local and immigrant increased rapidly to 52,760 inhabitants.

The growth of the population also affects the fulfillment of community needs, such as settlement and many rice fields of the local inhabitants has changed function become settlement. The increasing population of Way Huwi at the last one year made the domestic waste problem came up. Waste problem of Way Huwi Village of South Lampung is effect from accumulation of various conditions. First, the volume of organic and non-organic waste produced by 52,760 people of Way huwi village of Lampung Selatan is about 500 M3 per day. Second, the open dumping waste treatment system made the area of TPA full rapidly and its cause rejection from local community. Third, the limited resources and sanitation equipment for collect, transport and waste treatment. Fourth, no *Law Enforcement* about waste. Actually, the formal and informal regulation about waste already exist on "Way Huwi Lampung Village's Local Regulation" about sanitation and also the appeals on sign

board "do not litter", but both are ignored. Fifth, inappropriate attitude of waste, and the low knowledge and ability of household to do self waste treatment.

If we noticed, the last condition is the root of the waste problem in Way huwi Village of South Lampung and also other cities in Indonesia. The feeling of disgust for the waste is very reflected in their attitude, when they should develop a sense of friendly to the waste and based on the fact that this is the impact of physiological needs. Low knowledge of waste is reflected in the assumption that waste is not valuable and dirty, but according to Otto Soemarwoto (2006) waste is a resource and very hygienic when processed into compost. Linear with these attitudes and knowledge, the ability to process waste is very low, the households who can handle the waste without dispose or burning only few of them. And these attitudes contribute in inappropriate behavior about waste, it is very easy to find people littering waste any place, removing and imposing responsibility on waste to other parties. No socialization of waste treatment at the domestic level made that household members had the wrong learning process about the waste, and get the wrong learning results as well. Considering that every human person come from households, their behavior in handling waste is overwhelmed by the wrong learning process and thus attitude made the ability and knowledge of waste treatment becomes solid and inherited.

If the waste problem wants to be solved permanently, then there should be changes in attitude, knowledge and household ability about waste. The purpose of the change is to realize the attitude of households to receive and friendly of waste, and increase their knowledge and ability in waste treatment. The change must be done through the education process, because only education is able to change the behavior permanently which using the knowledge and ability of waste treatment and the right attitude about waste from education or from other sources. An education on household that can be done is the socialization of family members to instill attitude, knowledge and ability on waste treatment Here it is necessary that the participation of education services in the community must be able to explore the potential of the community, able to solve the problems, and developing human resources through the improvement of life skills, improve the culture of literacy, literacy as empowerment. Therefore, it is necessary the education services of waste problem so that the community will be educated and change their behavior to the waste problem

Based on the background of problems that have been described above, it can be formulated that the subject matter in this study is to review the forms of community participation on waste problem in their environment, then based on it formulated social action education model of waste treatment in the community in relation with human resources development in Way Huwi village, by asking the question "How is social action model of education of domestic waste teratment in the effort of community empowerment in village of Way Huwi Lampung Selatan?"

This research is generally wanted to understand and find out how the social action model of education at the domestic level in waste treatment in relation to human resource development in Way Huwi village, South Lampung.

Specific objectives to be achieved in this research is to understand and find:

1. Forms of community participation in the waste problem in their environment
2. Hypothetical model of social action education of domestic waste treatment in the community

## **B. Literature Study**

### **1. The Concept of Community Empowerment**

Empowerment should place the power of the community as the main capital and avoid external intervention that leads to the stagnation of community independence. Based on that, an agent of change in implementing empowerment must be consistent in the principles of empowerment. Empowerment should be the process of education because through the education resources process / potentials that exist in the individuals will be more easily explored and even developed so that individuals become empowered and useful for themself and around.

According to Leagans (Mardikanto, 2013, p.34) empowerment in the educational process has the following principles:

- a) Working, meaning that empowerment activities should maximally involve the community to do something. Through the process of working they will experience the learning process both with their thoughts, feelings and skills
- b) Consequence, it means that empowerment activities must have a good or beneficial effect so that participants will feel good to follow the empowerment activities
- c) Associations, it means that empowerment activities should be linked to other activities, because it will grow other knowledge.

Further according to Dahama and Bhatnagar (Mardikanto, 2013, p.43) the principles of empowerment are as follows:

- a) Based on the interests and needs, means that empowerment will be effective and efficient if it always refers to the interests and needs of the community. In this case need a deep assessment which really needs and interests of the community. The needs that can be fulfill in accordance with existing resources
- b) Low community organizations, means that the empowerment will gain participation from the community when it involves organizations in the community such as kelurahan.
- c) Cultural differences, means that empowerment should pay attention to the various cultures that exist in the community. Where this greatly affects the ethe implementation of mpowerment process, for that reason it must be adjusted to the exist culture in the community.
- d) The changes in socio-cultural structure, means that empowerment will effect the changes in the socio-cultural structure of society. Therefore, the empowerment activities are implemented wisely so that if the changes happen do not effect in cultural surprises
- e) Democracy in the application of science, means that participants participate in the learning process, result of learning and evaluation
- f) Learning while working, means that empowerment not only provide the concepts of science but also provide opportunities for participants to implement the theories that have been learned or gain experience through the implementation in real activities.
- g) Using the appropriate methods, means that the empowerment process should employ a variety of methods which adjusted to the conditions of physical environment, economic capacity and socio-cultural values.
- h) Leadership, means that the implementation of empowerment is just not intended for satisfaction of *agents of change* but also can foster the local leadership
- i) Trained agents of change, means that empowerment activities provided to the community should be provided by a trained person
- j) Including all family members, means that empowerment should be able to affect all family members which every family member has a role in every decision-making, should be able to develop an understanding of each family member, teach family financial management, encourage a balance between family and business which needs corporate and develop family activities and also strengthen family relationships both on social, economic and cultural issues
- k) Satisfaction, means that satisfaction will determine the next target participation in empowerment programs

The principles of empowerment are strengthened in a research by Kesi Widjajanti in 2011 about the model of community empowerment, it is said that the role of human capital becomes the foundation to develop empowerment and become the mediation to increase community empowerment. The character of *the agent of change* will improve the competence of both knowledge and expertise to be a determinant of the implementation of the empowerment program so that the impact on the built of a capable society

Referring to the opinions of experts of empowerment as one of the educational process, it would be appropriate if in community empowerment in order to handle the waste problem in the village of Way Huwi Lampung Selatan, an education process that can provide knowledge to the community are required, so that the community will be understood, have a will and able to implement the empowerment program, as *Mosher* said (1990, p. 34), that if a person has been aware of a new innovation, it is likely that interest will come up along with good knowledge of the innovation. Once they know then the tendency to want to follow the innovation is also high which effect in able to innovate.

## **2. Education For Sustainability (ESD)**

The sustainable concept at first is a concept that is widely used to explain the various efforts to maintain the sustainability of development which carried out in the future. In practice, this concept is less attention to the balance and harmony of various existing aspects, such as the balance between environment, natural resources, and social life of community. They prefer the success of development rather than the balance and harmony of various aspects that become supporters. Many efforts are made to maintain sustainability of development or

activities that have been achieved but less attention to the life balance of various things that become aspects of development.

Recently, the implementation of the sustainability concept is more focused on the balance between various aspects of the development, i.e environmental, economic and social aspects of the society itself (social culture). And utilization of the environment needs to consider aspects of economic and community life (socio-cultural). Economic improvements need to consider the environmental aspects and community life aspects as well as other aspects and so on. *Unesco* (2004) explain that,

*Sustainability is a paradigm for thinking about a future in which environmental, social and economic considerations are balanced in the pursuit of development and an improved quality of life. These three spheres – society, environment and economy – are intertwined. For example, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water, and clean air for its citizens.*

It is further said that sustainable development has three important perspectives, namely socio-cultural, environmental and economic. A socio-cultural perspective is an understanding of social institutions and human roles in change and development. Similar to a democratic system and participation that provides an opportunity to express opinions, choose government, develop agreements and be aware of differences. In an environmental perspective an awareness of natural resources, a sensitive physical environment, the impacts of human activities and decision-making relating to commitments to create social and economic development policies. The economic perspective is a sensitivity to the limitations and potential of economic growth and its impact on society and the environment, is related with a commitment to evaluate the level of individuals consumption and communities as a matter of concern for social and environmental justice.

Therefore it can be said that a harmonious balance between various aspects of development, then later generations will be able to continue the success of development.

### **3. Social Action Model of Waste Treatment through Community Education**

Community education is an organized and systematic activity outside of the school system. Working independently or an important part of a large activity, which is purposely to serve certain learners in achieving the goals. This education is for all ages so everyone gets the values, attitudes, skills, and knowledge of everyday life, environmental impacts including the influence of family life, relationships with neighbors, work environment and games, markets, libraries and mass media.

According to Kamil (2009:14) community education in the implementation process has an institutionalized system, which has the meaning that any educational development needs to be a mature program planning, through the curriculum, program content, facilities, infrastructure, target students, learning sources and factors which each other can not be separated in formal education. This means that public education planning contained in the curriculum that is tailored to the learning needs of learners, requires the facilities and infrastructure to support the learning process and the supporting factors.

According to Alifuddin (2011: 43) community education is to provide life skills. This means that the educational community equips the learners with skills and knowledge that can be applied directly to their life. Skills and knowledge to be provided based on the analysis of learning needs, so that in community education can not be separated from the context of the learner's life, where the experience of learners is a source of learning.

Process in community education, learners feel the real meaning of learning from the learning process planning, and evaluation of learning which done together between educators with learners and the results obtained from the learning process can improve their lives. Based on the above description of community education has the meaning that learning comes from the context of the learners' lives in the learning experience both from the family environment and society. In the learning process required a plan that involves the source of learning, so that the end result of learning is to have the ability.

The learning process and the outcomes of community education have advantages. First, the cost for the learning process is cheap because learning can be implemented at home or in the community. The demand for learning facilities refers to the importance of learning resources. Second, learning is related with the realities of the learners' lives, so that problems in the home and community can be completed through the learning process together. Third, community education has a flexible program. This means having a variety of programs. Fourth, evaluation of the implementation of learning can be directly implemented together.

This is in line with Kindervatter's thought (1979, p.87) based on research results in Indonesia and Thailand that the characteristic in the process of community empowerment are: 1). The formation of the small group, 2) the giving of responsibilities to the learners, involved in the planning activities, programming and evaluation program, 3) group leadership held by the students, 4) the agent, tutor, the teacher acts as facilitator, 5)

decision making process for each activities should be based on discussion, 6) the similarity of opinion and steps in achieving the goal, 7) the learning method used should be selected and can create the confidence of learners, 8) learning materials directed at the daily needs of learners.

### C. Research Methods

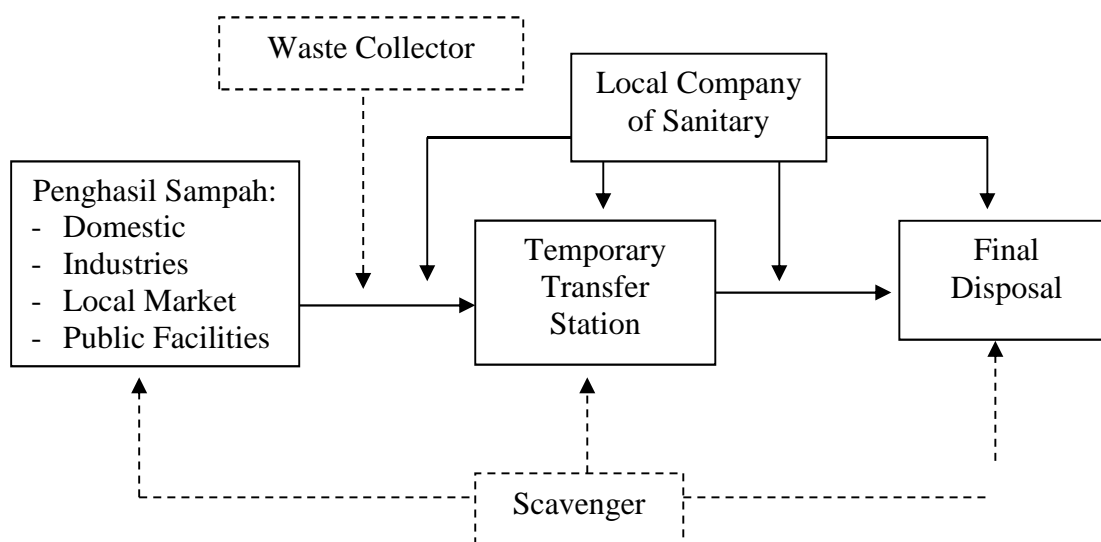
This research uses qualitative approach. Data were collected by interviews, documentation and observation. Source of data obtained from the community who live in Way Huwi village, South Lampung. Data analysis will through the process of data reduction, data display and conclusion. During the data analysis process the researchers also do the data verification.

### D. Result and Study

#### 1. Community Participation in Solving Waste Problems

The waste management system in Way Huwi village of South Lampung is currently as in the following figure:

Figure 1. The Waste Management System in Way Huwi Village, South Lampung



Some weaknesses in the system are:

- 1) The biggest responsibility is in PD Hygiene, whereas it should be more by waste producers.
- 2) The waste producers only act as payers of retribution, where should also be as a waste sorting and treatment.
- 3) The participation of scavengers and collecting workers in waste management is less appreciated, whereas their role is quite important in transporting and reducing waste.
- 4) The treatment of waste is reflected in the term TPS and TPA which are both synonymous with landfills, whereas waste should not be disposed of but processed or recycled which results into raw materials or resources

With the existing waste processing system, the results of research indicate that the form of participation of the community to solve the waste problem is by choose to pay the waste retribution fee that will be transported by the scavenger to the final disposal. This method is considered more effective and efficient. Although there are still some residents who burn the waste at the yard of their house . On the other hand, the community wants to participate if there is an activity program in solving the waste problem.



## 2. Hypotetic Model of Social Action of Domestic Waste Treatment Education

### • Social Action Procedures

The social action procedures that will be modeled, follow the steps that taken by The Center for Community Health Transformation in the Clarkston Public Health Training and Development program as follows:

- a) Choose a community that is willing to participate in the social action of domestic treatment. The indicator is the support of formal and informal leaders, the willingness of community to be involved in community activities and community organizations.
- b) Built the relationships with communities through visits to formal and informal leaders, community organizations, and community members themselves.
- c) Conducting training on "domestic waste treatment" which is followed by the community, and provide opportunities for community leaders to hear the needs and wishes of community.
- d) Providing assistance to community role models in listening to the issues that are developing in the community about waste treatment.
- e) Facilitate communities in critical thinking processes to identify domestic waste treatment action systems.
- f) Facilitate the implementation of an action system that includes funding issues and sources used by domestic waste treatment systems.
- g) Evaluate the process and impact of the implementation of domestic waste treatment system.

Social action in domestic waste treatment is in a complex social environment, characterized by various characteristics of community which include differences in education, income, status, occupation, values, participation motives and so on, therefore this action must attract sufficient interest among various groups in a community. Interest can be built through adjusting the needs of community, ease of doing, and benefits which immediately felt if the person is involved in the social action. If the interest already exists and the community actively participates then the facilities that required by the social action system will be relatively easy to be given the environment around the system to be used as operational resources for the system.

The purpose of this action system is that domestic reduce waste by sorting and processing it into compost. This goal is realistic because it is relatively easy to achieve and relatively efficient in using resources, what is difficult is how to make people want to do it. One way to solve these difficulties is the incentive from Local Company of Sanitation (PD Kebersihan) to help marketing compost to the agricultural industry and other markets. Subsystems in this social action are domestic, PD Kebersihan, agricultural industries. This sub-system must establish causal relationships that exchange energy and information for the achievement of goals.

This social action will last as long as the community exists, or there is another system that is better, therefore there needs to be a pattern so that individuals who are active in the system remain motivated and carry out their roles properly. The ability to carry out the role will depend on its ability to process waste and maintain the motive for clean living in the household and the surrounding environment. Tension has the opportunity to emerge, especially in the early stages of using the system, for that it is necessary to formulate the mechanism for managing the tension. Management effectiveness is usually by involving role models in the system and outside the system to act as mediators.

### • Community Education Process

Community education is all organized and systematic activities outside the schooling system, carried out independently or an important part of a large activity, which is deliberately done to serve certain students in achieving their learning goals (Sudjana, 2001). The education of domestic waste treatment is an important part of a large system of waste management in Way Huwi village, South Lampung. Without this education, the system is difficult to implement and achieve its objectives, so that it is an important component of the system. Participants studying in this education process are household members who are included in the adult category, so most likely who will follow them are those who are husband and wife -

father and mother. The selection of target learning participants with consideration will be more have a role in domestic waste treatment, and later is expected to be a source of learning for other family members through informal education in the form of socialization in the family. The purpose of learning is to solve problems (problem solving learning) with the content of the waste treatment area. The way of learning that will be used is learning with awareness that participants are active learning because they have certain goals or feel the needs or willingness to encourage learning motivation. Therefore the participants in learning in this education will be more directed to households who experience waste problems. Another learning method that will be applied is conditioning, participants are faced with certain conditions that actually occur in their environment, in this case the condition is a waste problem and waste treatment.

In order to achieve the goals, then in the process of education of waste treatment will be applied principles of learning as follows:

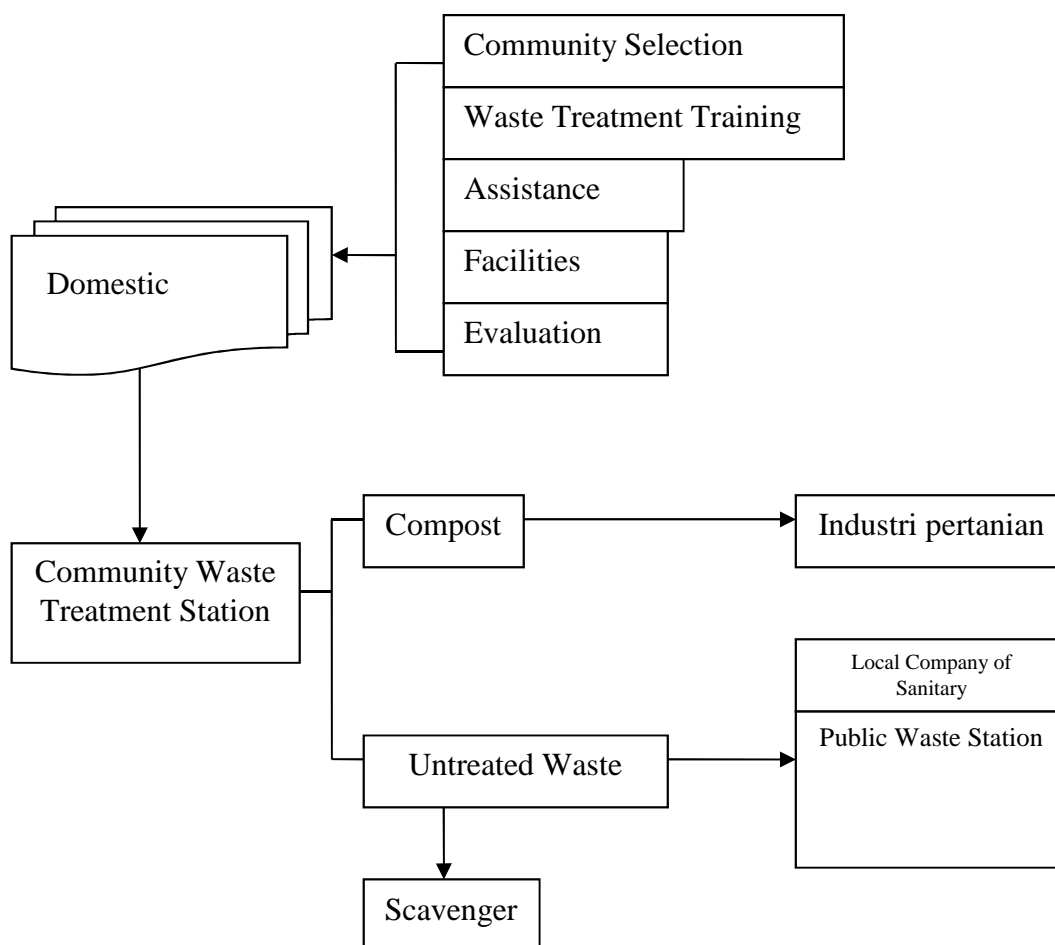
- a) The practice principle. Participants learn to do waste treatment activities repeatedly guided by instructors who are experts. This exercise is based on that the learning result will much better if participants learn to have experience doing what they learn.
- b) Association principle. Participants will learn the relationship between the old behavior that is not true about the waste with the impact, as well as the relationship between the new behavior which better impact
- c) Principle of effect. Participants are people who have the need to be able to process waste, so that he will feel motivated if the learning process that followed can meet these needs, because this facilitator will show the goals and benefits that can be learned by the participants.
- d) The principle of ability. Learning ability will arise if the learning process is in accordance with the needs of the participants, carried out in a comfortable physical environment, consider the time and duration of the learning process. For that, waste treatment education will be done in the participant environment, in a relatively short time, held on holidays and the number of participants is limited between 15-25 people for each generation.

The following is a hypothetical model formulated based on the results of research and analysis:

## **E. Conclusion**

1. Forms of community participation in solving waste problem consist of first paying waste retribution, burning waste at yard of the house, and the passion to participate in existing activities in order to solve the waste problem. The form of activity is waste treatment education in the form of waste recycling training.
2. The formulation of social action hypothetical model of waste education at the domestic level is effectively implemented in the implementation of empowerment program. The model considers a number of assumptions and fill up the elements. The assumptions are academic, social and economic. The formulation of this model is in accordance with the function of public education in developing human resources in terms of knowledge, attitudes and skills.

Figure 2. Social Action Model of Domestic Waste Treatment



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