
THE IMPACT OF DISASTER MITIGATION TRAINING ON ENVIRONMENTAL AWARENESS: A CASE STUDY ON UNNES STUDENTS

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ABSTRACT:

One of the ways to improve environmental awareness other than lecturing, is training. This paper demonstrates that disaster mitigation training has the potential to improve environmental awareness as an attempt to minimize the impacts of disasters. Mitigation is a set of efforts to reduce disaster risks, either through infrastructure or capacity building in overcoming disaster risks. By focusing on environmental destruction due to human activities, it reveals that those destructions are caused by human's mindset, attitude, and activities that do not reflect rationality and responsibility in exploring and managing the environment. This problem leads to the urgency of raising the environmental awareness. University students play a critical role in this effort, especially UNNES as a conservation university. It is a campus that actively promotes the campaign for conserving and protecting the nature formally within its conservation pillars.

This is an experimental research that aims to look at the impact of disaster mitigation training on environmental awareness by comparing the condition before and after the training. It employs a one-group pre-test post-test design with one pre-test and one post-test. The treatment was one disaster mitigation training on environmental awareness. Data were analyzed by using T-test to find out the difference between the environmental awareness before and after the disaster

mitigation training. The findings show that the environmental awareness was high, even before and after the training; and there is a significant post-test improvement after the training. Thus, the disaster mitigation training was effective as indicated by the significant post-test improvement.

KEYWORDS: training, disaster mitigation, attitude, environmental awareness

INTRODUCTION:

The purpose of this study is to examine whether there are differences in the level of environmental awareness before and after the provision of disaster mitigation training programs. The results of this study are expected to contribute theoretically and practically. The contribution, that is theoretically, the results of this study are expected to be used to expand scientific knowledge in the field of disaster psychology and education, especially those related to the study of disaster and attitudes of individuals towards the environment. Practically, it is expected to become a reference for institutions, which in this case are Semarang State University in general, and the Department of Psychology in particular in an effort to develop various models and strategies to facilitate students in knowing behavior in dealing with disasters. Likewise with students, the results of this study are expected to provide a better understanding of the process of dealing with disasters and attitudes towards the environment, so that they can help in planning and determining the right attitude towards the surrounding environment.

UNDERSTANDING ATTITUDE:

Attitude is a person's tendency to respond positively or negatively to certain objects such as people, institutions or events. According to some figures, opinion attitude as a certain regularity is this feeling (affection), views (cognition) and predisposition to one's actions (konasi) to an environmental aspect. The aspect of cognition concerns the components of knowledge, views, expectations, and ways of thinking, as well as everything obtained from the results of individual thoughts. The aspects of affection involve the emotional component and emotional state of a particular object as well as everything related to the evaluation of good and bad based on one's emotional factors. Aspect of conation concerns the motivation, behavior or activities of individuals by the feelings of an object or certain circumstances (Walgito, 2003: 127-128).

Krech and Crutchfield (2003: 14) defines attitude as an organization that remains from the process of motivation, emotion, perception or experience of an aspect of an individual's life. According to Walgito (2002) attitude is an organization's opinion of one's beliefs about a relatively steady object or situation, which is accompanied by certain feelings and provides a basis for that person to make a response or behave in a particular way chosen.

The description above can be concluded that the attitude is a certain state of the individual in the form of thoughts (cognition), feelings (affection) and tendency to act (Konami), both positive and negative towards an object.

Factors That Influence the Formation of Attitudes:

Factors that influence the formation of attitudes in the opinion of Walgito (2002: 117) are: 1) internal factors (internal factors) are the determinants of individuals because what

comes from outside is not all accepted, but the individual held a selection where. Which will be accepted and which ones will be refused, 2) external factors (external factors) are things or circumstances that exist outside the individual self which are a stimulus to shape or change attitudes.

Attitude Measurement:

According to Neolaka (2008: 41) the method of expressing or channeling attitudes can be done by 1) observing behavior is a way to find out a person's attitude to the object of attitude, can pay attention and observe behavior, because behavior is one indicator of individual attitudes, how to interpret attitudes with observation must be careful because it is usual to be an actor who appears only situational, 2) direct questioning is the assumption underlying the direct question for the expression of attitudes first is an individual is a person who knows better about himself and second is the assumption of directness that humans will express openly what perceived, 3) direct disclosure is this method consists of two kinds, namely: single item and multiple items, single items how respondents are asked to answer directly a written attitude statement by giving a sign of agree, hate, or like, yes or no, while the double item is a sema differentiation technique When typing, this technique is designed to express feelings related to the attitude object, namely choosing the dimensions and attitude words that are relevant to the attitude object.

Attitude Scale:

It is a method of expressing attitudes in the form of a collection of questions about the object attitude of the subject's response to each statement that can be concluded about the direction and intensity of one's attitude. The method of measuring attitudes is to use the

Likert scale in Neolaka (2008: 23), this scale uses only items that are definitely good and definitely bad, not included which are somewhat lacking, which is neutral and the other ranks between the two definite attitudes above.

Environmental Conscious Attitude:

Awareness of the environment is an important aspect of environmental management because environmental awareness is a form of one's concern for the quality of the environment, so there are various actions against policies that are not environmentally friendly (Swan and Stapp, 1974).

According to Krech and Crutchfield (2000: 12) states that the level of public awareness of the environment occurs as a result of the development of the understanding of the environment itself or due to changes in the needs of the values adopted, attitudes and characteristics of individuals. According to Iskandar (2001: 14) there is a very close relationship between human views of environmental sustainability. Furthermore, it is also said that the human view depends on the knowledge of experience gained, as well as the norms that are around the environment in which it is located.

Zen (1998: 3) believes that the environment is an effort to involve every citizen in growing and fostering awareness to foster and foster awareness to preserve the environment, based on the values of the environment itself with the philosophy of living peacefully with nature and the environment.

Environmental awareness is an effort to raise awareness so that not only knows about waste, pollution, greening, and protection of endangered animals, but more than all of that, it raises environmental awareness of Indonesian people especially young people today, so they

love the land and water to build Indonesia's homeland that just, prosperous and intact sustainable. Environmental ethics that until now applies is environmental ethics that is based on a value system that places humans as biological creatures.

Based on some of the meanings mentioned above, environmental awareness in this study is applied in accordance with the principles of conservation, namely protection, preservation and sustainable use of the environment.

Components of Environmental Conscious Attitude:

The components of environmental awareness are applied in the conservation principle according to Rahmadi (2011: 183). Environmental awareness is an effort to raise awareness so that they are not only aware of waste, pollution, greening, and protection, but also aware of campus protection, campus environment preservation, and sustainable use of the environment. The components of environmental awareness that are applied in the conservation principle are as follows.

A conscious attitude towards environmental protection:

Environmental protection is protection aimed at maintaining ecological processes that support the continuity of life to improve the welfare of society and the quality of human life. The steps in environmental protection are as follows. Determination of certain areas as areas for the protection of life support systems, establishing basic patterns for developing life protection systems, regulating how to use life protection systems. Protection of the life support system includes the efforts and actions related to the protection of the symptoms of the uniqueness and beauty of nature and others.

An environmentally conscious attitude towards campus environmental protection is

that students have feelings (affection), thoughts (cognition) and predisposing actions (Konami) movements such as 1) planting trees, 2) biking or walking when leaving for college, 3) making bio pores, 4) caring for plants on campus.

Definition of conscious attitude towards environmental preservation:

Preservation of the environment is the preservation of the diversity of plant and animal species and their ecosystems carried out in a manner determined by article 13 of Law no. 5 of 1990. Preservation of plant and animal species is carried out inside and outside the nature reserve area, preservation of plant species is carried out inside the nature reserve area by allowing the population of all plant species to remain in balance, preservation of plant and animal species carried out outside the nature reserve area maintaining and maintain and develop plant species to avoid extinction.

Preservation is a conservation effort and action to ensure diversity of species includes safeguards so that the conservation elements are not extinct with the aim that each of these goals can function in nature and are always ready for the times utilized for human welfare. A conscious attitude towards environmental preservation is: 1) disposing of waste by type (biotic and abiotic), 2) using Sikadu and E-lena to reduce paper consumption, 3) turning off lights that are not used, 4) gathering tasks through e-learning, 5) turn off the computer after finishing using it, 6) use water as needed.

Environmental Awareness Attitudes towards Sustainable Use of the Environment:

Sustainable use of natural resources is the condition of nature conservation areas, plant species. The nature conservation area consists of a national forest park and a major tourist park. The forms are in the form of study,

research, and development, hunting, captivity, trade, demonstration, exchange, cultivation of medicinal plants, maintenance for pleasure. An environmentally conscious attitude towards sustainable use of the environment is to use the environment in an environmentally friendly manner. An environmentally conscious attitude towards sustainable use of the environment is: 1) utilizing used paper, 2) making compost, 3) making learning props from used paper, 4) utilizing dried leaves, 5) utilizing used bottles, and used plastic, 6) attend training in making teaching aids by utilizing barbecue tools.

Factors that influence environmental awareness are ignorance and humanitarian factors. The purpose of ignorance is that humans do not have knowledge about the environment so it will obviously affect environmental awareness.

Human factors greatly affect the environment. Lifestyle factors are the emergence of global lifestyles through trade, travel, television, and they lay the basic framework for global lifestyles, global lifestyles are concerned with matter, having fun and wanting to follow the latest fashions that will damage the environment.

Environmental awareness according to Neolaka (2008: 119-124) can be achieved through environmental education, which is the problem of population and environment not only overcome by doing business that is technical, but must be supported by efforts that are educational and persuasive, the way to implement PKLH from children childhood through college.

Definition of Training:

Training is a factor that influences employee performance in an organization. As explained by Kaswan (2011: 55) effective training can improve performance, improve morale, and boost organizational achievement.

As'ad (2004: 66) states that training is intended to enhance performance by developing appropriate ways of thinking and acting and knowledge of work assignments. In other words, training is used to increase work skills. The skill has several functions, including shortening the distance between the time of completion of the task and the beginning of the task at hand, stimulating the impulse to act, filling spare time and giving greater satisfaction.

Training is a systematic process for changing behavior to achieve organizational goals. Training related to presenting work skills and abilities. Training has a current orientation and helps employees master the skills and abilities needed to achieve their goals (Invancevich, 2010: 394). According to Dessler (1997: 263) training gives new or existing employees the skills they need to carry out current jobs. This is different from education which provides knowledge about a particular subject in general because training focuses on specific needs at work.

From some of the definitions above, it can be concluded that training is a planned, structured, and regularly designed process that begins with the measurement of needs, implementation, and an evaluation that is carried out to help individuals improve, change, or develop attitudes and achievements through knowledge development and teaching behavior skills through providing experience in a particular activity.

RESEARCH METHODS:

This research is a quantitative study using a quasi-experimental method. The experimental method allows researchers to control and manipulate the situation being studied (Wade & Travis, 2007). The study was conducted in a quasi-experimental manner with The One Group Pretest-Posttest Design experimental design.

Identification of Research Variables:

The dependent variable in this study is the level of environmental awareness of students. The independent variable in this study is "Disaster Mitigation Training" which is the treatment variable.

Operational Definitions of Research Variables:

The operational definition is an understanding of variables which is interpreted based on the uniqueness of these variables that can be observed (Azwar, 2015). Following is the operationalization of each variable in this study.

Dependent Variable:

The level of environmentally conscious attitude is a form of the attitude of concern for the quality of the environment, so there are various actions against policies that are not environmentally friendly. In this study, environmental awareness is measured through a scale developed by researchers based on aspects of environmental awareness. The higher the score obtained from the scale shows the higher the environmentally aware attitude of the respondents, and vice versa.

Free Variables:

Disaster mitigation training is a training package consisting of 3 sessions (i.e. Session 1. Introduction and disaster, Session 2. Insights for disaster mitigation, and Session 3: Disaster anticipation preparation, which aims to improve environmental awareness.

Research Subjects:

The subjects of this study were students of the Department of Psychology who were selected purposively with subject inclusion criteria as follows:

1. Campus activist students

2. Have the willingness to attend training on disaster

Research Design:

Experimental Design uses The One Group Pretest-Posttest Design. The design of the experiment was carried out in only one group without a comparison group. This model uses an initial test (most prat) then after it is treated, it is measured again (posttest) to determine the effect of the treatment, so that the magnitude of the effect of the experiment can be known with certainty. The experimental design can be seen in Figure 3. The following experimental design:



Figure 3. Experimental Design

Information:

O1 = The level of environmental awareness before being treated

X = Treatment (Disaster Mitigation Training)

O2 = The level of environmental awareness is given treatment

Data analysis:

The data analysis process begins with the assumption test. The assumption tests include tests of normality and linearity. The normality test is done by looking at the significance value of Kolmogorov-Smirnov while the homogeneity test uses the Levene Homogeneity Test. The hypothesis in this study was tested using the T-test.

Descriptive analysis is performed to find out the description of the two variables. According to Sugiyono (2011: 147), descriptive statistics are statistics used to analyze data by describing or describing data that has been collected as it is without intending to make conclusions that apply to the public or generalizations. This type of research conducted this time is correlation research. In order to analyze the results of the study,

researchers used numbers described using conclusions based on numbers that were processed using statistical methods. The statistical method is used to find out the magnitude of the hypothetical mean (μ) and standard deviation (σ) based on the number of items, and the maximum score and minimum score on each alternative answer.

In this study, the categorization method used is level categorization (ordinal). According to Azwar (2017: 147), the categorization of levels has the aim of placing individuals into groups whose positions are tiered according to a continuum based on the attributes measured. Based on the above calculation, the following categories can be made:

Table 4.4 Categorization

Score Interval	Category
$<x$	Very high
$\mu + 1 \sigma \leq x$	High
$\mu - 1 \sigma \leq x < \mu + 1 \sigma$	Is
$\mu - 1 \sigma < x$	Low
$X \leq$	Very Low

Information:

μ : Hypothetical Mean σ : Standard Deviation x : Score

The description above will provide an overview of the distribution of scale scores in groups of subjects subjected to measurements and serves as information about the state of the subject on the aspects or variables under study.

DISCUSSION:

Descriptively, the pretest and posttest scores in the group of research subjects as subjects were in the high category. However, if observed, there is a significant increase (based on hypothesis testing), where the posttest score is higher than the pretest score. This shows that the provision of material is considered effective enough to increase understanding and increase the likelihood of a behavior occurring in

research subjects, where research subjects are expected to implement disaster mitigation training, especially when teaching about the importance of protecting the environment (more specifically, managing waste). This is consistent with the opinion of Curran (1994) which states that disaster mitigation training has advantages that make research subjects more easily understand the context. It was proven when tested on research subjects, knowledge and desire to behave in an environmentally conscious manner also increased. The advantage of this technique is that students look for a partner related to a topic while learning about a concept or topic, in a pleasant atmosphere.

In this context, the material provided is about natural resources, more specifically is about waste management delivered through games make a match. Lie (2008: 56) states that the disaster mitigation training model is a learning technique that gives subjects the opportunity to work together with others. Disaster mitigation training strategies are relatively effective in increasing understanding, in this case, research subjects conduct simulations about teaching natural resources and their utilization behavior, ranging from the unwise so that it damages nature to the wise enough to manage waste according to its type and even recycle it. Various knowledge related to waste is not presented through lectures alone but is managed in the form of paired games. Making it easier to understand because learning involves fun physical activities.

Thus it can be concluded that disaster mitigation training affects the environmentally-conscious attitude towards students and can be used as an alternative strategy for a faster understanding of material delivery. Considering the presentation of the material is given concretely (visually), not only through stories (audio) only.

CONCLUSION:

The results showed three conclusions that can be obtained from this research process, namely: a) general description of students' environmental awareness attitudes in the high category, both before and after being given the material, b) there was an increase in the posttest score after being given the material, and c) giving training materials using disaster mitigation training are considered to be quite effective, marked by increasing posttest scores.

Suggestions that can be given from the results of this dedication is the need to make more complex variations in training learning for difficult material so that research subjects can easily understand the material that has not been known. It is also easier for trainers to deliver material, although it is inevitable that more preparation will be needed and not a small amount of money to design interesting learning.

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