Relationship between environmental knowledge understanding towards conservation attitudes of Earth Hour Semarang volunteers

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Abstract. Humans and the environment are an inseparable part. Increasing of human activities and their negative characters cause environmental damage and pollution accelerate. The purpose of this study is to determine the relationship of understanding environmental knowledge towards conservation attitudes of Earth Hour Semarang volunteers. This research is a quantitative study using a descriptive correlation research design with cross sectional approach. The population in this study was 22 active volunteers from earth hour Semarang and observed using valid questionnaires. Sampling used non-probability sampling techniques with saturated sampling (census). From the research conducted, it was found that there was a significant relationship between the understanding of environmental knowledge towards conservation attitudes of Earth Hour Semarang volunteers with p value = 0.019 (α <0.05) and had a relationship strength of 0.497 or in the category of strong relationships.

1. Introduction
Humans and the environment are an inseparable part. The relationship between humans and the environment was initially very intimate. At the beginning of civilization from the stone age, gathering and hunting to shifting cultivation, humans have used it to sustain life, because the amount taken is not so large, so they are still able to recover themselves [1]. The environment itself is a unity of space with all objects, power, conditions, and living things, including humans and their behavior, which affect nature itself, the continuity of life, and the welfare of humans and other living things [2]. However, there are people who still think that the environment is no longer valuable because the environment (nature) is only an object intended for humans [3].

The position of humans in the unity of ecosystems is as part of other elements that cannot be separated. Humans are one component that occupies the chain of material cycle and energy flow in the ecosystem. Humans can only live as there are other components in the ecosystem such as oxygen, water, plants, animals and other components. All the components interact with each other to ensure the survival of humans and the organisms in it [4]. Humans affect the environment and humans can also be influenced by the environment. Even the relationships created are dynamic. Changes in the environment will cause changes in human behavior to adjust to new conditions. In this case, changes will also cause changes in the environment [5].
Changes that occur can also affect the quality of the environment itself. A clean, healthy and beautiful environment is certainly more comfortable to live in than a dirty and arid environment. Clean or dirty environment is greatly influenced by humans in that environment. If we want the environment to always be clean, of course we must clean it often. A clean environment will make us comfortable and healthy so that we can do all activities well, otherwise environmental problems will not arise [6].

Environmental problems have actually happened for a long time, even problems without human intervention. Increased human activities and their negative nature make environmental damage and pollution accelerate too. Damage that occurred due to various activities, both large scale and limited scale [7]. Until now, in general, human attitudes are only at the cognitive level, meaning that people just knew. Most of the human attitudes on earth have not yet been pointed toward improvement. The attitude of conservation of natural resources needs to be taken to prevent uncontrolled environmental damage.

Conservation of natural resources is the management of natural resources to ensure their wise use and continuity of availability while maintaining and improving the quality of value and diversity [2]. This conservation attitude can be expressed with an attitude of support or impartiality to the environment, which can be manifested in the willingness to protect, manage and use it wisely that can improve and maintain the quality of the environment.

This understanding of conservation is mandatory for every Earth Hour volunteer. It should not only be just knowing and understanding but it is also manifested in their attitude in order to maintain and improve the quality of the environment. Each person has a different attitude towards something stimulant. This is caused by various factors that exist in each individual such as differences in talent, interests, experience, knowledge, intensity of feelings and also the environmental situation [8]. Of the various factors that will be investigated by researchers is how the relationship of understanding of environmental knowledge to one's conservation attitude.

2. Methods
This research is a quantitative study using a descriptive correlation research design with cross sectional approach. Correlation descriptive research is a study that examines the relationship between two variables in a situation or group of subjects [18]. Cross sectional research technique is a research design by measuring or observing at the same time [9]. This study uses a questionnaire that has been used by Farkha Yohanifah. Karis has tested its reliability and validity. Questionnaires were distributed online using Google forms.

The population in this study were 22 active volunteers from Semarang earth hour. Sampling used the non-probability sampling technique with census, which is a method of sampling when all members of the population are the samples. It is mostly conducted if the population is small and less than 30 samples [10]. Analysis of research relationships using the spearman test which is processed using SPSS 17 software. Spearman test is used as the existing data are not normally distributed.

3. Result and discussion
3.1. Univariate analysis
The univariate analysis in this study describes the frequency distribution and percentage of respondents characteristics that include gender and age, education, a description of understanding environmental knowledge and a description of the conservation attitude of Earth Hour Semarang volunteers.

| Table 1. Characteristics of respondents based on gender and age |
|---------------------------------------------------------------|
| Gender | Frequency (n) | Percentage (%) |
|--------|---------------|----------------|
| Male   | 2             | 9.1            |
| Female | 20            | 90.9           |
Table 1 above shows that the majority of respondents were female, as many as 20 of 22 respondents (90.9%). Ages of the 22 respondents showed an age range of 18 to 25 years. Most respondents aged 20 years were about 7 people (31.8%). In accordance with the population obtained from Semarang Earth Hour volunteer coordinator data, it was found that women more than men. It can be caused by internal factors in decision making related to the nature of altruism and religiosity that is formed due to modeling of parenting practices, interactions with family members and socialization with the environment and the need to achieve childhood dreams and the need to establish relationships with new people. External factors are related to encouragement of influence from people around the subject such as friends [11].

| Age (year) | Total | Percentage |
|------------|-------|------------|
| 18         | 1     | 4.5        |
| 19         | 4     | 18.2       |
| 20         | 7     | 31.8       |
| 21         | 2     | 9.1        |
| 22         | 4     | 18.2       |
| 23         | 2     | 9.1        |
| 24         | 1     | 4.5        |
| 25         | 1     | 4.5        |
| Total      | 22    | 100        |

Table 2 above shows that 14 (63.6%) out of 22 respondents studied, majority, have bachelor’s degree. As an undergraduate, it is very important to participate in various internal and external campus organizations [12]. In the research, it is found the motivation of an undergraduate joining an organization, including as a means to get closer to their dreams, as a means of developing talent possessed, as a means of increasing intelligence and as a means to channel their interests.

| Education       | Frequency (n) | Percentage (%) |
|-----------------|---------------|----------------|
| Senior High School | 6             | 27.3           |
| Diploma         | 2             | 9.1            |
| Bachelor        | 14            | 63.6           |
| Total           | 22            | 100            |

Table 3 above shows the results of the study conducted on 22 respondents found that the average value of volunteer environmental knowledge understanding is 57.27. This value is not much different from the value obtained by Farkha Yohanifah in 2016 who conducted research on Biology students. The average value obtained in the study was 60 [13]. Understanding is one of the competency benchmarks that is achieved after students have done learning activities. In the learning process, each individual has different abilities in understanding what they are learnt. Some are able to comprehend the material as a whole and some are completely unable to take meaning from what they have been

| Name                        | Min | Max | Mean |
|-----------------------------|-----|-----|------|
| Understanding of Environmental Knowledge | 35  | 70  | 57.27 |
learnt, so that what is achieved is limited to knowing [14]. There are many factors that influence the understanding of learning, but it can be classified into two, namely internal factors and external factors. Internal factors are factors that exist within the individual who is learning, while external factors are factors that exist outside the individual. Internal factors consist of physical, psychological and fatigue factors. While external factors are family, school and community factors [15].

Table 4. Overview of conservation attitude

| Name                  | Min | Max | Mean  |
|-----------------------|-----|-----|-------|
| Conservation Attitude | 39  | 57  | 47.68 |

Table 4 above shows the results of the study conducted on 22 respondents found that the average value of volunteer conservation attitudes was 47.68. Basically, Earth Hour itself has programs for caring for the earth which can be started from each individual or for the wider community. Solo City Earth Hour Champion, for example, plans to adopt trees at public shelters and hold cycling. In addition, they will also create waste and water well installations in Solo. Another case in Jogjakarta, they plan to create a campaign in collaboration with Jogja Runners to hold a game adapted from the Running Man game show. Earth Hour Champion of Jogjakarta City also plans to hold a Green Charity with Jogja Berkebun which aims to educate younger siblings at the Orphanage to make compost. Earth Hour Aceh City does not want to be left behind by other cities. They will campaign for the use of public transportation by public transport cars [16].

Human attitude is not formed since humans were born. Human attitude is formed through social processes that occur during his life, where individuals get information and experience. The process can take place within the family, school and community. When there is a social process there is a reciprocal relationship between the individual and the surroundings. The existence of interactions and relationships then forms individual attitude patterns with the surroundings. Internal factors forming attitudes is the selection of the object to be addressed by individuals, not all objects that are around it are addressed. Objects that are addressed in depth are objects that are inherent in the individual. Previous individuals have gained information and experience about the object, or the object is something that is needed, desired or liked by the individual then it can determine the attitude that appears, positive or negative [19]. Other factors are caused by experience, interests, environmental situations, educational institutions, interactions with other people or groups, the influence of mass media, the influence of figures that are considered important, traditions, habits and culture [16].

3.2. Bivariate analysis

Table 5. The relationship between understanding environmental knowledge towards conservation attitude of volunteers

| Variable                                    | Correlation Coefficient | Sig. (2-tailed) |
|---------------------------------------------|-------------------------|-----------------|
| Understanding of Environmental Knowledge   | 0.497                   | 0.019           |
| and Conservation Attitude                  |                         |                 |

Table 9 illustrates the understanding of environmental knowledge towards conservation attitudes of volunteers. The results of the analysis found that there is a relationship between the understanding of environmental knowledge with the conservation attitude of volunteers, as p values = 0.019 (α <0.05) with the strength of the relationship 0.497 or in the category of strong relationships. This is in line with research conducted by Farkha Yohanifah in 2016 which found that there was a significant relationship between the understanding of environmental knowledge on the conservation attitude of biology education students’ batch 2012-2014 of UIN Walisongo Semarang. Calculations and analyzes can
provide an idea that environmental knowledge understanding can influence the conservation attitude of students [13]. Good understanding of environmental knowledge can support good attitudes as well. Preserving the environment is a necessity that should not only be the responsibility of the government or the country’s leaders, but everyone’s responsibility. Everyone must make efforts to save the environment around us in accordance with their respective abilities.

4. Conclusion

Based on the results of research and discussion that researchers have done about the influence of environmental knowledge understanding on conservation attitudes of Earth Hour Semarang volunteers, it can be concluded that understanding of environmental knowledge of Semarang Earth Hour volunteers with indicators of test questions given by researchers to respondents has an average value of 57.27, the conservation attitude of Semarang Earth Hour volunteers with indicators of Questionnaire given by researchers to respondents has an average value of 47.68, there is a significant relationship between the understanding of environmental knowledge towards the conservation attitudes of Earth Hour Semarang volunteers with p value = 0.019 (α <0.05) and has a relationship strength of 0.497 or in the category of strong relationships.

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