

Analysis of the Placement and Needs of Elementary School Students Regarding the Environment in Urban Areas

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Abstract. The topography of each region has its own characteristics. These characteristics will consciously affect every aspect that lives around it. This arises because of the adaptation process experienced by every element of the environment that lives in the region. Because of the differences in topography, the placement of environmental elements in the minds of students and students' needs for the environment in each region will also vary. Based on this, this research was conducted with the research subjects of 5th grade students in an elementary school in Purwakarta Regency. This research uses phenomenological research methods with observation and interviews as data collection techniques. The results found that all subjects were naturally interested in all elements of the environment in their school, they represented this with the adjectives happy, exciting, curious and pity. Regarding students' needs for the environment, three out of five subjects expressed that they needed more knowledge about soil. This includes the replacement of soil function with paving blocks, soil texture, fauna in the soil and soil processes that can make plants grow. It can be concluded that students' placement and needs for their environment depend on the elements of the space they live in.

Keywords: Environmental Placement, Environmental Needs, Elementary School Students, Urban Areas.

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INTRODUCTION

Diversity is a gift for living things. This makes living things to be able to appreciate each other more. This diversity can be seen in various aspects of life, both in living and inanimate objects. In living things, diversity is found in the types of living things and their uniqueness which is usually adjusted to their habitat. While inanimate objects, diversity appears in the form and function of these objects that affect the surrounding environment.

Topography is one of the forms of inanimate diversity. Topography can be interpreted as a description of the earth's surface such as the high-low land surface in a particular area (Yosanny et al., 2013). The difference in land surface affects the living things around it, giving rise to the characteristics of living things that live in the environment. The peculiarities that arise from living things are also known as endemics. Endemism in each region arises because of the adaptation process.

Humans as one of the three living things that inhabit an area also have characteristics from the adaptation process they experience. These characteristics appear in the form of dress, foodstuffs, language used and many more. But no less important is the way humans place the environment seen and felt by their senses in the mind's eye. This pure placement of meaning will have an impact on the output given by humans, namely the response or more broadly said to be an attitude.

The placement of environmental phenomena is experienced by humans during childhood. Phenomena around a child's environment will automatically place themselves in the child's mind. When referring to the task of child development developed by Havighurt, the period when a child is able to automatically place the phenomenon in his mind is in late childhood, namely at the age of 6-13 years or when children have entered school age. Because at this time children are able to develop understanding in their daily lives (Jannah, 2015).

In addition to being influenced by the topography that is already available naturally, the placement of environmental phenomena in the minds of children is also influenced by the treatment of the surrounding community towards the environment. The treatment in question is the presence of infrastructure or secondary goods that satisfy human needs that have an impact on the environment. The urban environment is an area that fits this description. The demands of the human lifestyle in urban areas affect their treatment of the natural environment around them (Putra, 2020). The treatment of water, soil, air, even plants and animals in urban areas will automatically affect the placement of the environment in the minds of today's primary school students.

The placement of the natural environment in the minds of primary school students is different from the attitude of environmental care. When talking about attitudes, it means that there has been an intervention regarding the actions that must be taken. Or it can be said that external factors have worked at that time (Nurfirdaus & Sutisna, 2021). However, the placement of the natural environment does not go that far. The placement of the natural environment dwells in the minds of students after an event occurs and is captured by the senses. The position of the event that has occurred and has been captured by the student's mind without the intervention of external influences or the student's prior knowledge constitutes the placement.

The placement of the natural environment is important in the minds of students and even humans in general. In the view of phenomenological philosophy, especially the phenomenology of perception developed by Maurice Merleau-Ponty, the placement of the meaning of the natural environment can be classified as part of the sense experience which defines all phenomena experienced by humans in their lives as lived experiences. Because the human body is the world itself and vice versa. This ambiguity can only take place through the human body itself (Sebastian, 2016).

In her study, Putri argues that this placement has a huge contribution to the equilibrium of human relations with nature in the future. This statement is based on Merleau-Ponty who argues that the subject or human does not only consist of spirit and physical entities. The phenomena experienced by humans and the functions of the senses and ego are so complex and meaningful to humans, where the placement in the mind becomes the beginning of the continuation of the equilibrium or disequilibrium of human relations with nature (Putri, 2015).

If based on this philosophical view, the placement of the natural environment in accordance with existing conditions is the first step to exploring further things in the future regarding the environment (Sahfutra, 2021). But so far the urgency regarding the placement of the natural environment in the minds of students, especially students living in urban areas, has not been studied too much. This does not mean that the results of the initial studies that have been carried out do not get anything. Although not in line with this research, the initial study of this research found several scientific articles that intersect with the topic of this research.

The first study suggested that the most important thing in improving environmental insight is the perception of the environment and environmental ethics. The aspect that is considered very influential in this research to improve environmental ethics and change human perceptions of the environment is the cognitive aspect. Because the cognitive aspect is the main focus, educational institutions and educators are the main agents that can improve perceptions of the environment and improve environmental ethics (Darlius & Sitanggang, 2015).

Meanwhile, other studies indicate that environmental care attitudes in students can be improved through its integration in subjects. Where educators include it first in the lesson plan in the habituation session and direct practice when teaching and learning activities take place. In this study, what is more emphasised is the affective aspect in students, namely the emergence of environmental care attitudes (Rezkita & Wardani, 2018).

In another study, it was mentioned that environmental care attitudes are better integrated with subjects outside of Environmental Education, namely in Natural Science subjects. The main reason for doing this is because Environmental Education is considered not optimal in developing environmental care attitudes in students. This is evidenced by the increasingly uncontrollable environmental problems at the elementary school level. In this study, the Problem Based Learning learning model was used as a form of action in improving environmental care attitudes in

students. And the results of the study state that there is an effect of using the Problem Based Learning learning model in Natural Science subjects in improving the environmental care attitudes of elementary school students (Triani et al., 2019).

Furthermore, there is also research that examines environmental ethics in education from the perspective of the branch of philosophy, namely axiology. From the research that uses the literature review method, it is explained that axiology should support the creation of good environmental ethics when applied in the world of education. This research emphasises the development of environmental ethical principles with wisdom and moral values in it (Faizah, 2020).

It can be seen that the above studies focus more on a treatment or view in order to bring up or lead students' minds to be able to bring up or do environmental ethics. In these studies, the side of students' experience with the natural environment or it can be said that the phenomena experienced by students naturally are less considered or not made the main focus in the research conducted. When referring to the empiricism learning theory developed by John Locke, the provision of interventions carried out in the three studies is indeed appropriate. However, there is still one thing that is wrong, namely the provision of intervention or direction must be in accordance with the experience, needs and potential of students (Weu et al., 2023).

As previously described, philosophical views regarding the placement of the meaning of the natural environment should also be experienced by students naturally in accordance with the environment around them, in this study the natural environment in urban areas. Departing from the phenomena experienced by students, students can later place and respond to their environment according to their experiences. Because back in essence, students or humans are also part of nature itself.

Meanwhile, when viewed from teaching materials or textbooks that are usually used in teaching material about the environment, there is research stating that the teaching materials are less relevant to the natural environment or existing environmental problems. The first study states that the learning outcomes in environmental lessons that have not reached the maximum level cause the implementation of environmental education in educational institutions to be less applicable and solutive in solving environmental problems. The findings of this study indicate that the context contained in environmental education teaching materials is only limited to ideas and instrumental about the environment (Prasetyo & Perwiraningtyas, 2017).

Supporting this research, there are also other studies which from the results of their research state that in designing and developing teaching materials regarding environmental education in elementary schools must at least refer to some basic principles that refer to the natural environment itself. One of the principles that is also the main principle is the principle of problem solving. With this principle, students are expected to be able to better recognise and provide solutions to environmental problems around them (Saputri, 2021). Placing the natural environment in the minds of students can be said to be the first step in knowing the problems that students have to deal with and in a perspective that is also in accordance with students' experiences in the urban environment that they encounter every day.

The whole explanation above is the initial step that underlies this research. This research, which uses phenomenological research methods, aims to analyse more deeply the placement and needs of grade 5 elementary school students regarding the natural environment in urban areas from the phenomena experienced by students in their school environment. From the analysis of the placement of the natural environment in the minds of these students, it is hoped that conclusions can be drawn about the needs that students need to learn at school and be able to help students also to achieve equilibrium with their environment in urban areas.

METHOD

The approach used in this research is a qualitative approach using educational phenomenology as the method. Phenomenology can be said to be a point of view that discusses the experiences experienced by humans and how humans place these meanings (Barnawi & Darajat, 2018). This research method was chosen because it is suitable for taking and processing

research data that will be raised, namely regarding the placement and needs of elementary school students in the natural environment in urban areas.

This study was conducted in one of the private primary schools in Purwakarta district that is located in an urban area. The definition of urban used in this study is not administratively urban, but urban with easy transport, public facilities and access to commerce that is not difficult to reach. The participants or subjects in this study were five grade 5 students in the private elementary school. The sampling technique used was purposive sampling because there were several criteria in selecting participants (Sugiyono, 2019). The selection of participants is based on criteria that refer to the theory of cognitive development of participants, namely grade 5 elementary school students who are in the concrete operational stage (Ibda, 2015).

The data collection techniques used were interviews and observations. The data analysis used is a phenomenological data analysis technique which includes stages: full description of the phenomenon, horizontalisation (delayed bracketing/epoche), cluster of meaning (textural description and structural description), and construction of description of the meaning of the phenomenon (Hasbiyansyah, 2008).

RESULTS

The results of interviews and observations conducted with five participants in this study, there are some similarities but not absolute and so are the differences that exist. From each result obtained, the researcher does not intervene in the answer at all but only describes the participant's answer in accordance with the phenomenon experienced and refers to the interview questions and observation guidelines that have been designed. This is in line with the rules set out in the educational phenomenological research method.

There are several elements of the environment proposed in the interview as well as included in the observation guidelines. The elements of the environment are plants, animals, water, soil and air. The answers to each question and the results of observations are direct phenomena experienced by students around the school environment in urban areas in Purwakarta Regency.

In the plant element, all students stated that they had memorable experiences with plants in the school environment. Three participants stated that the phenomenon they experienced that was related to the plants around their school was when they practised planting bean sprouts using hydroponic techniques. They were curious about how the bean sprouts could grow without the help of an unusual planting medium. The only planting medium they knew before the phenomenon was soil. One of the three participants also felt sad when the bean sprouts wilted because they were not given water on the day off.

The other two participants had their own experiences with the plants in the school. There was a participant who placed the plant as a fun object because he could climb the plant (tree). While the other participant considered plants as something impressive because they can produce something (fruit). This participant felt impressed with the plants in his school when he and his friends planted chillies and took care of the plants until they produced fruit.

Experiences with animals at school also had meaning for participants. There were three participants who considered spiders and cats as their friends. They were so curious about how spiders produce their webs. While the phenomenon with cats is related to the compassion of seeing cats that are looking for food and cats whose eyes they consider dirty so that it is difficult to cross the road. The last participant had a frightening experience with mice. This experience occurred when one of his friends saw a mouse running around the classroom and crossed another friend's leg.

Unlike the previous experiences with environmental elements, all participants experienced and interpreted the water element differently. The first participant interpreted water as a tool for washing hands when going to eat and after eating. The second participant interpreted water as something fun especially when the rainy season arrived, because he could play in the puddles on the school field. The next participant interpreted water as something fun too because several times after sports subjects he often washed his face and his friends considered the water on his face as sweat. The fourth participant interpreted the water element as something sad. This arose

in his mind after the long dry season this year. He interpreted water as something that is difficult for humans to obtain. While the last participant interpreted water as a complement to the needs of human life because without water to drink, humans will have difficulties.

The next environmental element is soil. In relation to this element, all participants did not directly experience soil because the school grounds were almost all covered by paving blocks, cement and sand for construction purposes as well as several metres of the school garden which was not too large. Participants one to three were unable to gain any experience with soil at all. Participants one and two only stated that the paving blocks were where they played and ran at school. The second participant also only had the pleasant experience of playing with sand, which is actually intended for construction. Participants four and five had experience with soil only when practicing planting chilli plants. And one of them did not like the texture of soil because it made her hands and nails dirty.

The last environmental element is air. Four of the participants felt uncomfortable with the air conditions in their school area. But the cause of this interpretation is not because of the location of their school which is right on the edge of the highway, which in fact, the air there will always be polluted because of motor vehicle fumes. The main cause of the air pollution phenomenon they experienced was due to the presence of sand for building construction purposes at their school. Some of them complained that the sand caused them to cough and they were forced to wear masks to filter the air entering their lungs. In addition, there was one participant who stated that according to him, besides humans, animals in the school also suffered losses due to the sand, because the cat he often played with had difficulty seeing due to the dust that arose from the sand. Meanwhile, another participant had a different experience from his four friends. He felt that the air quality at his school was good and so he did not need a mask to cover his breathing apparatus.

From the description of the meaning of the five environmental elements above, some participants interpreted their environment with several positive adjectives. Three of the participants interpreted the natural environment in their school as something fun and exciting. They interpreted it that way because there were many new experiences that they experienced and brought up their own pleasure in their minds. There was also a participant who interpreted his school as a litter-ordered environment because in the phenomena he experienced he rarely found garbage scattered around. The last participant interpreted the natural environment in his school as a proper playground, but he still felt uncomfortable with the air conditions around his school environment.

The culminating question and guideline of this research was the needs for the natural environment that participants felt they needed to learn about. Four of the participants felt that they needed knowledge about soil. However, from the data collected, these four participants had different curiosities about the element of soil. These curiosities included the reasons why soil should be replaced with paving blocks or cement, why soil textures are different, why soil can make plants grow, what exactly is in the soil, and how animals in the soil (worms) are doing. While one other participant felt that she needed more knowledge about the animals that she often encountered in the trees in the school garden.

DISCUSSION

In the background, the differences in the topography of each region are explained in detail, along with the differences in other conditions that arise from the adaptation process carried out by humans to the place where they live. The ability of humans to adapt according to the topography of the area where they live affects the placement of the meaning of the natural environment in the minds of students as part of the environment in the region. The difference in question focuses on differences in the placement of meaning influenced by different phenomena experienced by students in accordance with the area where they live.

Because this research wants to examine the placement of the natural environment experienced by students in urban areas. Topographically, social conditions, transport and infrastructure in urban areas are clearly different from other areas. From here it can be stated that the phenomenon or students' experience of the natural environment in their school is different.

Urban areas are authentic with all its conveniences. This will be directly proportional to the condition of the schools around the area.

The explanation of meaning in the discussion section on the placement of the natural environment through phenomena experienced by students or participants in their school environment in urban areas proves that the placement of the meaning of the natural environment in the minds of students tends to vary depending on each phenomenon experienced by students on each element of the environment. This fact is in line with the philosophical study underlying this research, namely that every experience experienced by students is a sense experience that is lived so that it gives rise to its own meaning for students in their minds (Sebastian, 2016).

When compared with the results of previous studies that have been described in the previous background. There is clearly a difference in the purpose of enacting environmental education specifically in the realm of elementary school. Three of the four previous studies presented, enacted an action to bring out what they wanted from students related to their environment or it can be said that the response (ethics) to the environment.

Two articles stated the need to integrate environmental ethics in learning tools to increase the sense of caring for the environment. The difference between these two studies is the placement of environmental ethics in subjects. The results of the other study indicate that environmental ethics can actually be formed if it is honed more in the cognitive realm. While the last study only provides the results of its analysis, namely the importance of the role of axiological philosophy in improving human environmental ethics in educational institutions.

Regarding the branch of philosophy of axiology in the last study, there is still a connection with the results of the analysis found in this study. Given that axiology is a branch of philosophy about values and morals, the connection that appears is in the sub-branch of axiology, namely descriptive ethics. Descriptive ethics is defined as an attempt to discover and explain consciousness, beliefs and experiences without assigning values (Abadi, 2016). In line with this research, which aims to analyse the placement of the meaning of the natural environment in the minds of students before being influenced by other factors in order to find the need for natural environmental knowledge needed by students in accordance with the conditions of the natural environment around them or in this study around urban areas.

While in the other three articles there is a gap with the results of this study because these studies are less based on what students need around their environment. These studies only focus on the importance of ethics towards the environment contained in the rules. As Prasetyo and Perwiraningtyas have explained in their study, the content of environmental education in schools is less applicable and solutive in solving environmental problems experienced by students in their daily surroundings (Prasetyo & Perwiraningtyas, 2017).

So it can be said that the results of the analysis regarding the placement of the meaning of the natural environment and the needs needed by students regarding knowledge in the surrounding environment, namely in urban areas, are able to answer the knowledge needs of environmental education needed by students in accordance with the conditions and phenomena that students experience in their daily lives.

CONCLUSION

The conclusion that can be drawn from this research is that the placement of the natural environment in the minds of students in schools located in urban areas varies according to the environmental elements. Of the five elements of the environment studied in this research, namely plants, animals, water, soil and air, the element of soil that makes students or participants most curious and feel the need for more knowledge is the element of soil. Many of them do not feel the function of soil in their school environment. This happened because of the conversion of soil with paving blocks and cement on almost all the land in their school. As for the other elements, students had different experiences and almost all of them described the environmental elements with the adjectives exclamation, happy and scary. From the results of the analysis, the statement of these adjectives arises because the experience is so meaningful and imprinted in the minds of students, in accordance with the rules of educational phenomenological research.

The results of this study reinforce previous research that students' needs for knowledge contained in environmental education, especially within the scope of primary schools, have not been able to fully help students solve environmental problems that exist around the area they live in, or in this case the primary school area in urban areas. Because from the results of the analysis, it is found that what students need, especially those in urban areas, is knowledge about soil functions and their types. This happened because of the loss of soil function which has now been replaced by the presence of paving blocks and cement on almost all land in the school environment.

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