

Differences in Forest Conservation Behavior among Nature Lovers, Mountain Climbers, and the General Public in Tasikmalaya

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Abstract

Tasikmalaya is a region in West Java that is divided into two administrative areas, namely Tasikmalaya City and Tasikmalaya Regency. The total area of Tasikmalaya Regency is 2,708.82 km², with a coastline of approximately 54.5 km and a fishing ground area of 306 km². However, forest destruction continues to occur, causing a steady decline in forest area in Tasikmalaya. In 2023, it was reported that 10 hectares of forest land had been lost due to forest fires (Dinkes Kab. Tasikmalaya, 2023). The existence of nature lover groups with all their environmentally friendly activities should be one of the solutions in reducing forest destruction in Tasikmalaya, because cognitively, the members of these nature lover groups have been equipped with knowledge on how to care for, protect, and preserve forests. However, currently, many people who are not members of nature lover groups have become environmental activists and realize the importance of forests for life. The research method used was quantitative comparative research with a Likert scale-based survey technique. The population used in this study was the entire community in Tasikmalaya City and Regency, consisting of various backgrounds. The sample used in this study was purposive sampling, divided into three categories: 9 nature-loving students, 11 mountain climbers, and 53 members of the general public, for a total of 73 respondents. The results of the study show that each community group has a different level of environmental conservation behavior. Mountain climbers have the highest environmental conservation behavior among other community groups because mountain climbers consist of various age groups with an average age of 20 years and above. Their frequent mountain climbing experiences have had an impact on the forest conservation behavior of this community group.

Keywords:

*Behavior; Forest Conservation;
Nature Lover; Tasikmalaya*

A. Introduction

Tasikmalaya is a region in West Java that is divided into two administrative areas, namely Tasikmalaya City and Tasikmalaya Regency. The total area of

Tasikmalaya Regency is 2,708.82 km², with a coastline of approximately 54.5 km and a fishing ground area of fishing grounds of 306 km². Administratively, Tasikmalaya Regency consists of 39

subdistricts comprising 351 villages. Three subdistricts have coastal and marine areas with a total area of 200.72 km² or 7.41 percent of the total area of Tasikmalaya Regency (Pemkab Tasikmalaya, 2017) while Tasikmalaya City has an administrative area of 18,385.07 hectares (183.85 km²), consisting of 10 subdistricts with 69 urban villages. Meanwhile, based on Law Number 10 of 2001 concerning the Establishment of Tasikmalaya City, the area of Tasikmalaya City is 17,156 Ha (171.56 km²). This means there is a difference in area of 1,229.07 hectares (12.29 km²) as a result of the use of different measurement methodologies (DPRD Kota Tasikmalaya, 2020).

The diverse geographical conditions and the fact that it is not a metropolitan city mean that this region still has a lot of green open space. The total forest area in Tasikmalaya is 43,974.61 ha, consisting of 16,070.89 ha ($\approx 37\%$) of protected forest (HL), Limited Production Forest (HPT $<15\% + >15\%$) covering 22,622.59 ha, and Production Forest (HP) covering 5,281.13 ha (West Java Forestry Service, 2024). These forests are spread across six mountains, namely Mount Awilega covering an area of 8,359 ha, Mount Galunggung covering an area of 10,053 ha, Mount Karacak covering an area of 7,575 ha, Mount Terjung covering an area of 10,200 ha, and Mount Tonjong covering an area of 7,788 ha (Dishut Jabar, 2024). These forests are spread across six mountains, namely Mount Awilega covering an area of 8,359 ha, Mount Galunggung covering an area of 10,053 ha, Mount Karacak covering an area of 7,575 ha, Mount Terjung covering an area of 10,200 ha, and Mount Tonjong covering an area of 7,788 ha (Perhutani Tasikmalaya, 2024). However, forest destruction continues

to occur, causing a continuous decline in forest area in Tasikmalaya. In 2023, it was reported that there had been a reduction of 10 ha of forest land due to forest fires (Dinkes Kab. Tasikmalaya, 2023), not to mention deforestation and land conversion to illegal quarries and gold mines, which continue to occur in the Tasikmalaya District. Tasikmalaya, resulting in a reduction of approximately 7 hectares of forest land (Media Indonesia.com, 2023) and this situation persists to this day.

Seeing this condition, many people are not yet aware of the importance of protecting the environment, even though the environment is an important aspect in the survival of living things within it. All living things have a position as biotic aspects, while the habitats of living things, which consist of water, soil, air, and other non-living objects, are abiotic aspects. Without realizing it, throughout our lives we are constantly interacting with the objects around us, whether they are living objects or living creatures or non-living objects. These interactions form a system called an ecosystem. In this process, all components in the system will continue to interact and depend on one another. If one component is lost, there will be a disturbance in the ecosystem that will cause instability. Living organisms and their nonliving (abiotic) environment are inseparably interrelated and interact upon each other. Any area of nature that includes living organisms and nonliving substances interacting to produce an exchange of materials between the living and nonliving parts is an ecological system or ecosystem (Odum, 1959).

Abiotic aspects, especially forests and mountains, represent enormous potential that can be utilized by

humans, coupled with the diversity of living creatures within them that motivate and attract humans to explore their uniqueness. In life, forests play a very important role. In addition to being the lungs of the world, forests also have other more complex and extensive functions. Forests regulate local and global climate, ameliorate weather events, regulate the hydrological cycle, protect watersheds and their vegetation, water flows and soils, and provide a vast store of genetic information much of which has yet to be uncovered (Pearce Corin G T Pearce, 2001).

Forests, with their various functions and benefits, are not fully recognized by humans as contributing to forest conservation. When forests begin to deteriorate, the lives of the creatures living in them are also threatened, one of which is the occurrence of increasingly extreme climate change, according to Mortsch in (Sri Rahayu, 2016) The impact of climate change in Indonesia over the past five years has even triggered many disasters in the form of floods due to high rainfall intensity and duration, rising sea levels that have the potential to cause tsunamis, or even extreme droughts in certain areas due to unclear seasonal shifts, as well as disasters caused by strong winds and tornadoes due to changes in wind speed and direction. These changes can slowly or drastically affect the micro and macro climate conditions formed in all existing ecosystems and can have a negative impact on all components of the ecosystem, including plants, microorganisms, and other organisms in the ecosystem.

According to Duri in (Jalu Lintang Y.A, 2016) nature lover groups began to emerge around the 1950s. The term

"nature lover" itself first appeared on October 18, 1953. The name "nature lover" was first proposed by Awibowo in that year and was also used as the name of his association, namely the Nature Lovers Association (PPA). The purpose of establishing this association was to accommodate the positive and pure hobbies of young people, in the sense that they were not maniacs who merely indulged in negative desires. The aim of establishing this group was to expand and increase love for nature among its members and the general public. This association disbanded a few years later due to political conditions that were not stable. Its reemergence was marked by the emergence of nature-loving communities in Jakarta and Bandung. After that, nature-loving organizations such as MAPALA UI and Wanadri began to emerge. Both organizations emerged in the 1960s. MAPALA UI, which initially consisted of literature students, included figures such as Soe Hok Gie.

The formation of nature lover groups is based on human activities to enjoy forests and mountains, which have become enjoyable and even a hobby. People who share the same hobby and vision then gather to form groups and call themselves nature lover groups. Nature lovers are people or members of the community who have an interest or hobby in nature and are willing to help protect the ecological processes that support life, preserve the diversity of natural resources, and ensure the sustainable use of natural resources and ecosystems (Dirjen KLHK, 2006). Nature lovers' groups engage in activities such as mountain climbing, caving, rafting, rock climbing, camping on the edge of forests, and so on (Mardianto et al., 2000). The existence of nature lover groups is

expected to be the answer to various types of environmental damage because, in fact, only humans are capable of doing this task. Nature and environment are commonly used terms for the ecology. Man is seen as a sort of geological force reshaping landscape, favouring some kinds of organisms and destroying others, changing the very composition of the atmosphere and starting new chain of radio activity with atomic explosions (MA Part, 2014).

The existence of nature lover groups with all their environmentally friendly activities should be one of the solutions in reducing forest damage in Tasikmalaya, because cognitively, the members of these nature lover groups have been equipped with knowledge on how to care for, protect, and preserve forests, even though currently many people who are not members of nature lover groups have become environmental activists and realize the importance of forests for life. According to T. Hermansah in (Aswandi & Darmana Manda, 2023) the Nature Lovers Community itself consists of the community, meaning that the implementation of Sahabat Alam community activities requires community participation. Community involvement in environmental management is very important because it can foster a sense of ownership in addition to providing knowledge about environmental issues. Therefore, the Naturefriends community plays an important role in raising public awareness of environmental protection.

The Mapala Student Activity Unit (UKM Mapala) must take its own initiative in its efforts to preserve nature and the environment through its work programs. In this case, it is hoped that this will have a positive impact on the sustainability of nature and the

environment. Thus, it can become a momentum to set an example for the general public to participate and contribute to preserving nature and the environment (Putra, 2019).

The community consists of people who occupy a certain area, either directly or indirectly, and interact with each other in an effort to fulfill their needs. They are connected as a social unit through a sense of solidarity due to their historical background. Politics or culture and constitutes humans as social units and a recurring pattern (Dimas Yeni Mustofa et al., 2019). Society is abstract, but Indonesian culture, with its sociable and indirect nature, forms small community groups, usually based on similarities in thought, habits, and hobbies. One hobby that is currently popular among the community is mountain climbing.

Mountains are currently a popular location chosen by people for exploring nature as a recreational sport. In fact, mountain climbing or hiking may already be a source of pride and existence beyond simply enjoying a vacation. Thousands of people choose to spend their holidays hiking. This phenomenon has attracted public attention recently (Faisal et al., 2017).

The motives for people to engage in the physical activity of mountain climbing are to relieve fatigue or boredom caused by their daily routines and personal problems, to blend in with nature and enjoy natural scenery, to try new things and gain new experiences, to interact with nature, and as a hobby. Second, the benefits gained by people who engage in mountain climbing activities are (a) physical benefits: as a form of exercise, maintaining physical health, physical training, and helping to lose weight, (b) psychological benefits: revitalizing the mind or refreshing,

relaxation and recreation, character building, gaining pleasure or satisfaction, learning or practicing independent living, and gaining new experiences, (c) social benefits: making friends and as a means of socializing, (d) spiritual benefits, namely getting closer to the Creator. Third, the risks and dangers of mountain climbing activities are caused by two factors, namely (a) internal factors (climbers), including inadequate planning and preparation, fatigue, falling, and getting lost, external factors (natural conditions), including weather or climate, mountain illnesses such as hypothermia and hypoxia, and attacks by wild animals

(Adam Rahman & Kristiyanto, n.d.).

The existence of nature-loving student groups and mountain climbing communities should be an important element in forest conservation. Both must work synergistically so that the forests and mountains they enjoy remain sustainable. Providing education to these two groups should be the main focus in forest conservation efforts. The role of each individual, whether they are members of nature lovers or non-nature lovers, is important in maintaining forest conservation because individuals are the smallest aspect in the forest conservation process.

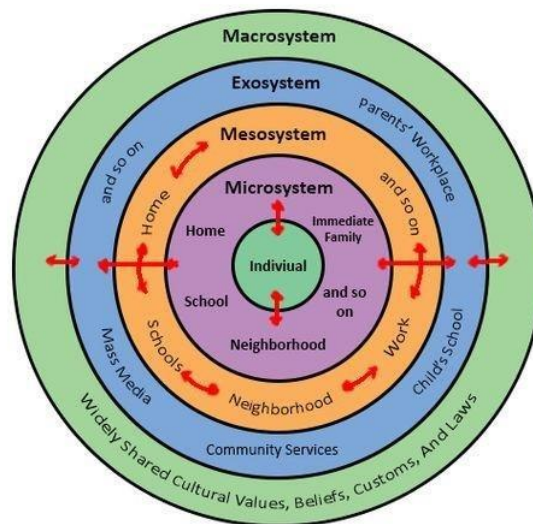


Figure 1. The Ecology of Human Development Bronfenbrenner theory (1977, 1979)
Source: (Arifin & Teh, 2020)

The image above shows that before making ecological changes to a larger stage (macrosystem), one must first have a role at the microsystem and mesosystem levels and exosystem (Bronfenbrenner, 1979). The key to major change is individual awareness in the form of attitudes based on what they know before it is translated into behavior.

The arrangement of behaviors from simple to complex and the differentiation of behaviors into three

domains the cognitive, the psychomotor, and the affective were made primarily from an educational viewpoint (Benjamin S. Bloom et al., 1956). Bloom divided the domains of human attitudes in education into three, namely the cognitive aspect (knowledge), the affective aspect (attitudes and feelings), and the psychomotor aspect (skills or physical actions) as shown in the following figure:

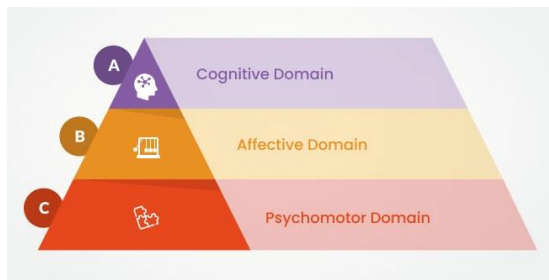


Figure 2. The Three Domains of Bloom's Taxonomy

Source: (Mustak Ahmed, 2025)

The behavior and role of the community also determine the condition of the surrounding forests. The community must play an active role in protecting the forests because, in general, the forests function as erosion barriers and provide water sources for the community, in addition to their economic and social functions. According to the community, forests are very beneficial in supporting their lives. The community believes that forests need to be protected and preserved to prevent landslides and droughts. Most of the community members are farmers, so their dependence on forests and water availability is very high. Forests are needed to ensure that water remains available even during the dry season (Sihotang et al., 2019).

B. METHOD

The research method used is quantitative comparative research with a Likert scale survey technique with a scale of 4,3,2,1 (Rensis Likert, 1932). A survey design provides a quantitative description of trends, attitudes, and opinions of a population, or tests for associations among variables of a

If human behavior were regulated solely by external outcomes, people would behave like weathervanes, constantly shifting direction to conform to whatever momentary social influence happened to impinge upon them. In actuality, people possess self-reflective and self-reactive capabilities that enable them to exercise some control over their thoughts, feelings, motivation, and actions. In the exercise of self-directedness, people adopt certain standards of behavior that serve as guides and motivators and regulate their actions anticipatorily through self-reactive influence. Human functioning is, therefore, regulated by an interplay of self-generated and external sources of influence (Albert Bandura, 1991). The various discussions above form the basis for this research, which aims not only to address and find solutions to current problems but also to serve as a foundation and reference for the implementation of forest conservation awareness in education, from primary and secondary to higher education. Forests, as the lungs of the world, must be preserved so that the future of humanity remains sustainable.

population, by studying a sample of that population (John W. Creswell & J. David Creswell, 2018) with the aim of comparing the level of knowledge, behavior, attitudes, or habits of forest conservation in a particular population. The dimensions and indicators of humans in forest conservation are as follows:

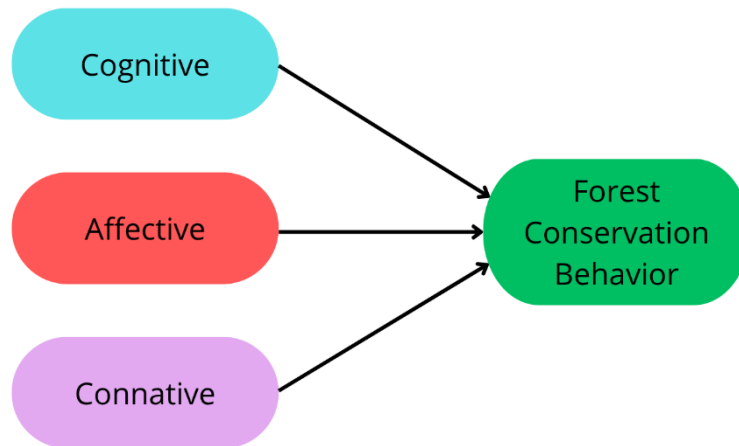


Figure 3. Conceptual Framework of Forest Conservation Behavior Dimension

Cognitive development is a series of changes that occur throughout human life in terms of understanding, processing information, solving problems, and acquiring knowledge (Sitti Aisyah Mu'min, 2013). Conceptual understanding (cognitive), according to Bloom in (Arifudin, 2021) is defined as the ability to absorb the meaning of the material or subject being studied. This understanding explains how much students are able to receive, absorb, and understand the lessons given by teachers to students, or the extent to which students can understand and comprehend what they read, see, experience, or feel in the form of direct results. These cognitive theories have contributed to themes related to a person's cognitive development from birth to adulthood and can be used as a reference in improving learning effectiveness (Hasan Basri, 2018). In terms of forest conservation, cognitive ability is the result of human learning about the functions, benefits, and importance of forest conservation for present and future life.

The affective domain is the implementation of a person's learning outcomes in the form of attitudes and concern for forest issues. According to Bednar & Levie in (Eleanor Pierre, 2007)

Affective learning inculcates the values and beliefs we place on the information we engage with. It refers to our attitudes and willingness to take part in new things, and ability to make decisions about how we operate and behave in a variety of circumstances. Attitudes are not directly observable, but the actions and behaviors to which they contribute may be observed. Menurut Smith dan Ragan dalam (Mary Miller, 2015) Affective learning outcomes involve attitudes, motivation, and values. the expression of these often involves statements of opinions, beliefs, or an assessment of worth. According to Aksan in (Ahmad Wildan Rifki & Listyaningsih, 2017) environmental awareness is a form of character value that must be developed in the educational process at school. Environmental awareness is an attitude and action that always seeks to prevent damage to the natural environment around us and to develop efforts to repair damage that has already occurred. The environment plays an important role in supporting human life in achieving a better quality of life. With the development of the times, the function of the environment as a support for human life is now threatened by pollution, waste of

natural resources, and population pressure.

Forest conservation in the conative aspect means accustoming oneself to participating in forest conservation in the form of awareness and behavior. This aspect is important because the characteristic of successful learning is when the learning outcomes are applied in behavior and daily habits.

According to Baumeister et al. (Huitt & Cain, 2005) Conation refers to the connection of knowledge and affect to behavior and is associated with the issue of “why.” It is the personal, intentional,

planful, deliberate, goal-oriented, or striving component of motivation, the proactive (as opposed to reactive or habitual) aspect of behavior. Affect refers to the emotional interpretation of perceptions, information, or knowledge. It is generally associated with one’s attachment (positive or negative) to people, objects, ideas, etc. and is associated with the question “How do I feel about this knowledge or information?” (Huitt & Cain, 2018). The description of the forest conservation dimension is outlined in the following table:

Table 1. Description of Forest Conservation Behavior Dimensions

No.	Dimension	Description
1.	Cognitive (Knowledge)	All knowledge level a person regarding the functions, benefits, and importance of forest conservation. This includes an understanding of the impacts of deforestation and environmental degradation.
2.	Affective (Attitude and Concern)	Positive attitude and sense of concern towards forest conservation. This dimension relates to values, moral sensitivity, and a sense of environmental responsibility.
3.	Conative (Behavior)	Concrete actions to preserve forests, both individually and collectively. This includes involvement in conservation and rehabilitation

Measurements were taken by collecting data using a questionnaire on forest conservation behavior consisting of three aspects, namely knowledge, attitudes, and forest conservation behavior among the people of Tasikmalaya City. The qualitative data obtained through the survey was then converted into quantitative data and analyzed using descriptive statistical techniques with the help of Microsoft Excel version 16.78.3 software.

The population used in this study was

the entire community in Tasikmalaya City and Regency, consisting of various backgrounds. The sample used in this study was obtained using purposive sampling with dividing the sample into three categories: 9 nature-loving students, 11 mountain climbers, and 53 members of the general public, for a total sample of 73 people. This was done to assess the extent of each community's behavior towards forest conservation. The composition of the respondents is illustrated in the following graph:

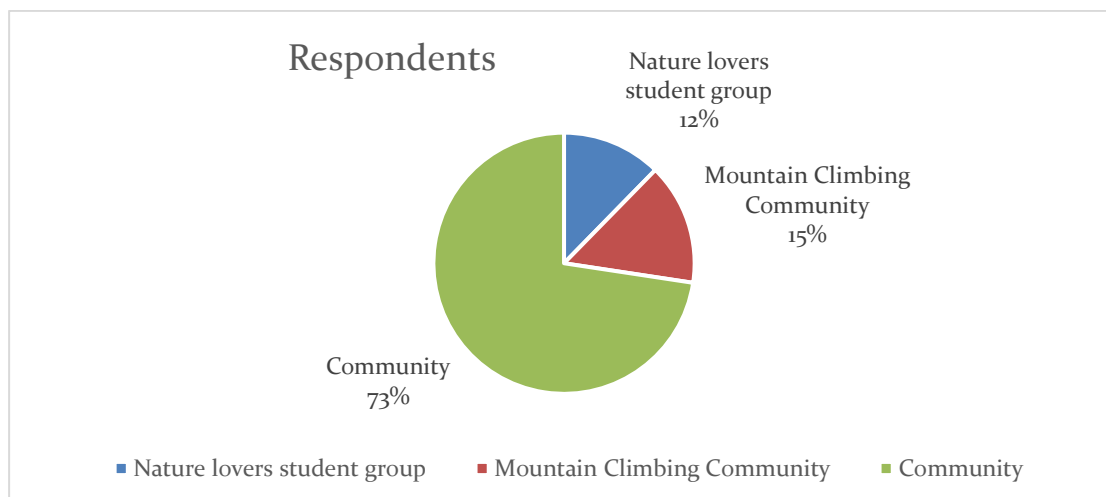


Figure 4. Graphics of Respondents Composition

C. RESULT AND DISCUSSION

1. Result

Based on the results of statistical data analysis in the form of measurement values of respondents' knowledge about forest conservation in Tasikmalaya, which was conducted on 73 samples consisting of 9 nature-loving students, 53 members of the general public, and 11 mountain climbers, it was found that the general public had higher knowledge than with the sample with

an average score of 8.92, followed by the nature-loving student group with an average score of 8.78, which was the second highest score, while the mountaineering community had an average score of 8.73, which was the third highest score. The complete scores for respondents' understanding of environmental conservation behavior are described in the following table:

Table 2. Respondents Level of Understanding of Forest Conservation Behavior in Tasikmalaya

<i>Respondents</i>	<i>n</i>	<i>Σx</i>	<i>\bar{x}</i>
<i>Nature Lovers Student Group</i>	9	79	8,78
<i>Community</i>	53	473	8,92
<i>Mountain Climbing Community</i>	11	96	8,73
<i>Total</i>	<i>73</i>	<i>648</i>	<i>26,42</i>
<i>Mean</i>		<i>8,89</i>	<i>8,80</i>

Furthermore, the highest score for respondents' attitudes toward forest conservation behavior in Tasikmalaya was obtained by the general public with an average score of 9.2, indicating that the general public has a very high score in terms of attitude. The second highest score was obtained by mountain

climbers with an average score of 9.1, and the third highest score was obtained by the nature-loving student group with an average score of 8.89. The data on the respondents' attitudes towards forest conservation behavior in Tasikmalaya is described in the following table:

Table 3. Respondents Attitude Levels Towards Forest Conservation Behavior in Tasikmalaya

<i>Respondents</i>	<i>n</i>	Σx	\bar{x}
<i>Nature Lovers Student Group</i>	9	32	8,89
<i>Community</i>	53	194,6	9,2
<i>Mountain Climbing Community</i>	11	40	9,1
Total	73	266,6	8,89
Mean		8,89	9,05

Conversely, for the measurement of respondents' behavior towards forest conservation in Tasikmalaya, the highest score was obtained by the mountaineering community with an average score of 7.36. The second highest score was obtained by the

student group nature lovers with an average score of 7.36 and the third score was obtained by the general public with an average score of 5.77. The data on the respondents' behavior towards forest conservation in Tasikmalaya is described in the following table:

Table 4 Respondents Behavior Level Scores Regarding Forest Conservation Behavior in Tasikmalaya

<i>Respondents</i>	<i>n</i>	Σx	\bar{x}
<i>Nature Lovers Student Group</i>	9	23,6	6,55
<i>Community</i>	53	122,4	5,78
<i>Mountain Climbing Community</i>	11	32,4	7,36
Total	73	178,4	19,7
Mean		5,95	9,05

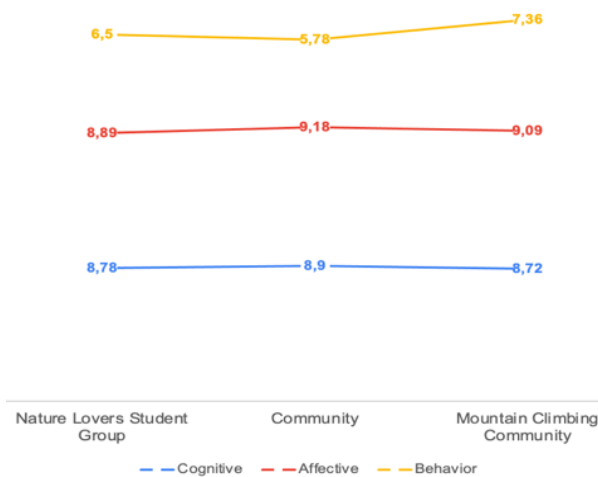


Figure 5. Results of Behavior Forests Conservation

2. Discussion

The results of the study show that each community group has a different level of environmental conservation

behavior. Mountain climbers have the highest level of environmental conservation behavior among other community groups because mountain

climbers consist of various age groups with an average age of 20 years and above. Frequent mountain climbing experiences have at least an impact on forest conservation behavior in this community group. In addition, the mountaineering community has more time to seek information on forest conservation, so they have sufficient information on preserving forests.

The results of the measurement of the cognitive aspect concluded that the general public had higher knowledge than the other sample groups with a score of 89.2%, followed by the nature-loving student group with an average score of 87.8% in second place, while the mountaineering community had an average score of 87.3% in third place.

The highest score in the affective aspect was obtained by the general public with an average score of 92%, indicating that the general public has a very high score in terms of attitude. The second highest score was obtained by mountain climbers with an average score of 91%, and the third highest score was obtained by nature-loving students with an average score of 88.9%.

The highest score in the conative aspect was obtained by the mountaineering community with an average score of 7.36. The second highest score was obtained by the nature-loving student group with an average score of 7.36, and the third highest score by the general public with an average score of 5.77.

The above data shows that nature-loving student groups do not always have good forest conservation behavior. In fact, the general public has a better level of knowledge and awareness than nature-loving groups and mountain climbers. This could be due to several factors, namely:

1. Mountain climbers are hobbyists

and enthusiasts of forests and mountains who are quite mature in age. In fact, it is not uncommon for some of them to be alumni or senior members of nature-loving student groups, which gives them more influence in terms of experience than other respondents. In addition to having more experience, the mountaineering community also has more time to receive information about forest conservation. With this capital, this group will certainly be more concerned and will actively participate in forest conservation activities in the form of concrete actions.

2. The general public differs from mountaineers in terms of experience in forest conservation. Of course, the general public is not as knowledgeable as mountaineers, but in some respects, respondents from the general public have better values than respondents from other groups. Although they do not have experience or information about forest conservation, the general public has good knowledge about the forest conservation process, which they usually obtain through independent literacy, whether through newspapers, magazines, television, or other media. However, they do not have the space to take real action in forest conservation, so they will not be very involved in forest conservation activities.
3. The nature-loving student group did not show significant scores in all aspects, because they are students who spend most of their

time on campus studying. Quantitatively, the three aspects measured for this group showed the lowest scores, but these scores were still within the high values, so with their young age and still in the productive learning group, this group certainly still has very long potential. The opportunity to participate in official forest conservation activities organized by both the campus and external parties is still very possible for them to follow. This will certainly have an impact on forest conservation and also provide them with experience so that in the future they can become good forest conservation agents.

D. CONCLUSION

The findings of this study indicate that there are significant differences in environmental conservation behavior among various community groups. Mountain climbers demonstrated the highest level of forest conservation behavior compared to other groups. This is largely influenced by their frequent engagement with nature, greater access to environmental information, and broader experience in outdoor activities, which collectively shape a more active and responsible attitude toward forest preservation.

These results reveal that high environmental knowledge and attitudes do not always translate into concrete conservation actions. While the general public possesses better awareness and understanding, mountain climbers exhibit stronger real-world conservation behavior due to their experience and active engagement. Meanwhile, student nature lovers, though currently scoring lower, have promising potential to become effective forest conservation

agents in the future as they gain more exposure and experience.

Overall, this research concludes that environmental conservation behavior is shaped by a combination of experience, access to information, and opportunities for participation, not merely by knowledge or attitudes alone. Therefore, fostering awareness through education and providing opportunities for direct engagement are crucial strategies for strengthening sustainable forest conservation behavior across all community groups.

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