

Factors Affecting Awareness of Environmental Conservation of Undergraduate Students

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Abstract

The purpose of this research was to study the level of environmental conservation awareness and the relationship between factors affecting the awareness of environmental conservation of undergraduate students. To study and compare factors affecting environmental conservation awareness among undergraduate students of different genders and academic years. The sample used in the research was undergraduate students. Department of Environmental Education, Faculty of Environment and Resource Studies, Mahasarakham University, 219 people from voluntary participation. The research tool was a questionnaire on factors affecting the environmental conservation awareness of undergraduate students. The statistics used in the research were frequency, percentage, mean, and standard deviation. And hypothesis testing using One-Way ANOVA. The results of the study showed that:

1. Undergraduate students are aware of environmental conservation at a high level with a value of 3.88. When considering each item, it was found that the factor that students were most aware of in environmental conservation was the value of natural resources and the environment. Followed by knowledge of environmental conservation, awareness of environmental conservation news, environmental protection model, and participation in environmental conservation. The factor that students were least aware of in environmental conservation was participating in environmental conservation activities, respectively. All factors were related to the awareness of environmental conservation in a positive direction at statistical significance at the .05 level.

2. There was no difference between undergraduate students of different genders in their awareness of environmental conservation. There was a difference between students of different academic years and awareness of environmental conservation at statistical significance at the .05 level.

Keywords: factors, awareness, conservation of the environment, gender, academic years

1. Introduction

Human life today involves many things, both living and nonliving. Involvement is possible both directly and indirectly. Which sometimes causes the various organisms to change in the direction that causes evolution and extinction. Human beings are the most intelligent beings because they can completely improve and adapt natural resources and the environment to support life which resulted in environmental pollution problems. At present, environmental pollution is a major problem that affects the ecosystem and people's quality of life. Today's

environmental problems are directly caused by human actions due to basic needs and comfort needs in various fields. Encourage humans to advance science and technology in making use of natural resources more convenient and easier. It also develops industrial production processes to reduce waste generation into the environment, such as wastewater problems, air pollution problems, and noise pollution problems. The result of consumption causes waste to spread to the environment in the form of solid waste, wastewater, and even air pollution (Arunee Wongsripan, 2008). The environmental pollution of the world and regions has increasingly become a transboundary problem affecting the soil, water resources, seas and oceans, air, and ecosystems that have a direct impact on human health and well-being. Most of the current pollution problems come from the industrial sector, the transportation sector, the use of fertilizers and pesticides in agriculture, and the use of more complex and increasing amounts of chemicals. Its main drivers are the global population increase and rapid economic development that drives production, consumption, and increased demand for food and energy. Humans are the creators of pollution until they destroy the natural environment, such conditions can be reduced only when all human beings work together to solve the environmental problems that occur. (Ministry of Natural Resources and Environment, 2021)

The overuse of resources by humans without regard to the balance of nature causes natural degradation and has an impact on human beings and the environment. The main cause of contamination of pollution in the environment is the result of human ingenuity that knows how to bring technology to develop society in various fields. And increase the comfort of living in human daily life without measures to prevent problems that will follow. The cause of the spread of contaminants polluting the environment (Sukarn Rattanalertnusorn, 2007). Resulting in daily life, annoyed incidents, disease, chemical poisoning disease in the surrounding air. If the poison is inhaled, it causes respiratory disease. Waste disposal without a proper collection system would be disgusting and smelly, is a source of infection spreading. If the working environment is not suitable, then the disease related to that occupation will occur. The occurrence of noise pollution makes it difficult to sleep well, causing fatigue and sickness easily. And if there is stress as well, it can cause poor mental health. (Pithai Tathong, 2015)

Encouraging local people to participate in conservation, help maintain and maintain the original condition, and not deteriorate for the benefit of their local lives. Coordination to create knowledge, understanding, and awareness between government agencies, local government organizations, the people have roles and responsibilities in protection, coordination to create knowledge, understanding, and awareness between government agencies, local government organizations, and the people have roles and responsibilities in protection, protection, rehabilitation, cost-effective use of resources, and maximizing benefits. (Prayoon Wongchantra, 2016: 242) Guidelines for solving natural resources and reducing the impact on natural resources and the environment by reducing the use of natural resources. Waste disposal causes environmental problems and natural resource management planning. (Institute for the Promotion of Teaching Science and Technology, Ministry of Education, 2017: 153)

For the field of environmental education, faculty of environment and resource studies, Mahasarakham University, be a source of learning and produce graduates with quality and virtue as leaders who live themselves in an environmentally friendly manner. It is a program that aims to develop graduates with knowledge, attitudes, awareness, and skills in solving problems and participating in solving environmental problems. and can also be a leader in disseminating knowledge properly and appropriately and improving the quality of undergraduate education.

Therefore, the researcher has focused on studying factors in various aspects that affect the awareness of environmental conservation of undergraduate students at the Department of Environmental Education, Faculty of Environment and Resource Studies, Mahasarakham University. To know the factors affecting undergraduate students' awareness of environmental conservation. For the benefit of preserving natural resources and the environment. Take care not to deteriorate. For the benefit of their local lives and restoring resource efficiency and maximum benefit.

2. Research Objective

2.1 To study the level of factors awareness affecting awareness of environmental conservation of undergraduate students.

2.2 To study and compare factors affecting environmental conservation awareness among undergraduate students of different genders and academic years.

3. Research Methodology

3.1 Research Conceptual Framework

This research was to study the factors affecting the awareness of environmental conservation of undergraduate students, consisting of 6 factors, namely: factors participation in environmental conservation, factors for awareness of environmental conservation news, factors that value natural resources and the environment, factors for participation in environmental conservation activities, factor knowledge of environmental conservation, and factors of environmental protection model. Studied and compared the factors affecting environmental conservation awareness among undergraduate students of different genders and academic years, with steps as shown in Figure 1.

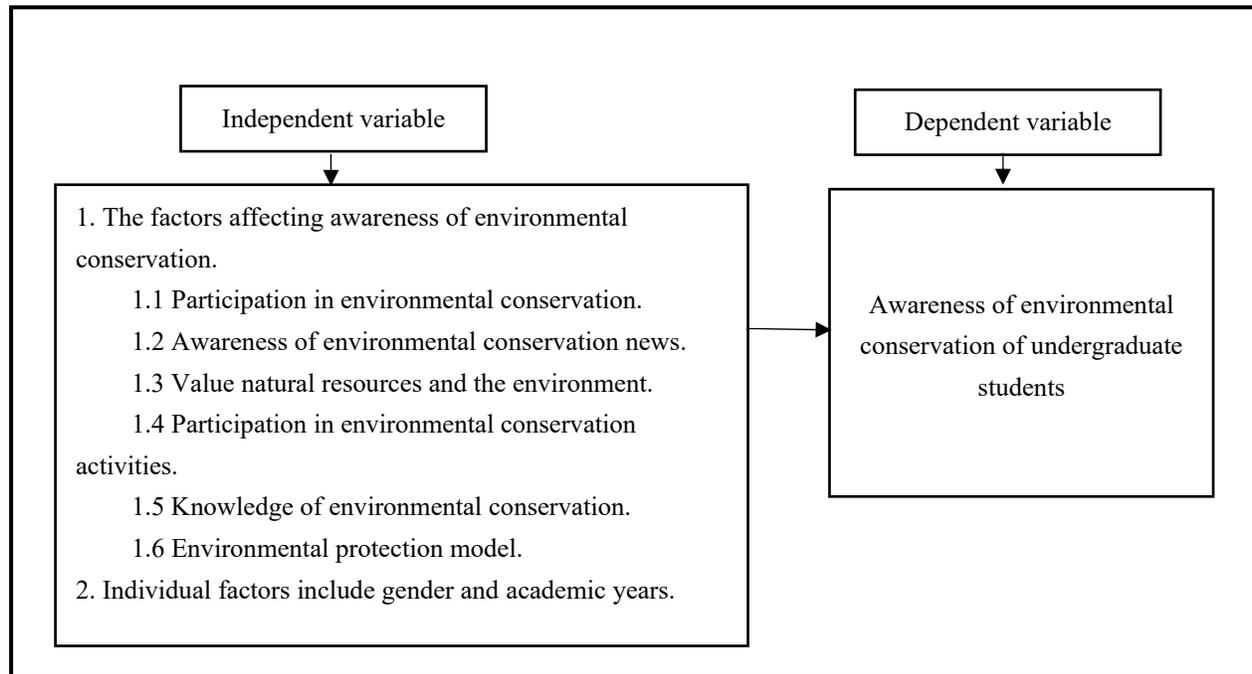


Figure 1. The Conceptual Framework Used in Research

3.2 The Population and Sample

The population used in this research were 329 undergraduate students in the Environmental Education program, Faculty of Environment and Resource Studies, Mahasarakham University.

The sample used in the study were 219 undergraduate students in the Environmental Education program, Faculty of Environment and Resource Studies, Mahasarakham University which were derived from voluntary sampling.

3.3 The Variables

3.3.1 Independent variable variables are:

1) The factors affecting the awareness of environmental conservation of undergraduate students, consisting of 6 factors, namely: factors participation in environmental conservation, factors for awareness of environmental conservation news, factors that value natural resources and the environment, factors for participation in environmental conservation activities, factor knowledge of environmental conservation, and factors of environmental protection model.

2) Gender.

3) Academic years.

3.3.2 The dependent variable was awareness of environmental conservation.

3.4 The Research Tools and Quality of Tools

Factors affecting the awareness of environmental conservation. The tools used to collect data were questionnaires on factors affecting the environmental conservation awareness of undergraduate students. With the online system, Google form, the steps to find the quality of the tools are as follows:

3.4.1 Study basic information about building a questionnaire on factors affecting awareness of environmental conservation by studying concepts, theories, documents, and related research. To be a guideline for constructing a questionnaire on factors affecting awareness of environmental conservation.

3.4.2 Determine the scope and content structure of the questionnaire on factors affecting environmental conservation awareness in accordance with the study objectives. And created a questionnaire on factors affecting awareness of environmental conservation, 30 items. It is a multiple-choice test with 5 levels, choose to answer questions with accuracy and truthfulness as much as possible. The criteria for scoring are as follows: practice every time for 5 points, practice often for 4 points, practice sometimes for 3 points, practice once in a while for 2 points, and never practice for 1 point, Set the criteria for interpretation as follows: (Kanokwan Ruangrakrian, 2008)

Average awareness score	Interpret
1.00 - 1.80	Least awareness
1.81 - 2.60	Less awareness
2.61 - 3.40	Moderate awareness
3.41 - 4.20	High awareness
4.21 - 5.00	Highest awareness

3.4.3 Take the questionnaire on factors affecting awareness of environmental conservation sent to 5 experts to consider the quality of the questionnaire. By analyzing the IOC value, it was found that the questionnaire on factors affecting awareness of environmental conservation of undergraduate students was 1.00. Has a fitness value of 3.91, indicating that it is at a high level of suitability and can be used to collect data.

3.4.4 Take the questionnaire on factors affecting awareness of environmental conservation of undergraduate students that have been analyzed by experts to try out with students who are not a sample of 30 people. To find the discrimination and the reliability of factors affecting awareness of environmental conservation of undergraduate students. The results of the analysis of discrimination were between 0.20 – 0.70, the question was considered appropriate. The reliability is equal to 0.879, which is in accordance with the specified criterion and can be used to store data. Then be updated to complete data collection.

3.5 Data Collection

3.5.1 Explain the details of answering questionnaires on factors affecting awareness of environmental conservation of undergraduate students to understand before collecting data to obtain complete information online.

3.5.2 Prepare a questionnaire on factors affecting environmental conservation awareness, consisting of 6 factors, namely: factors for participation in environmental conservation, factors for awareness of environmental conservation news, factors that value natural resources and the environment, factors for participation in environmental conservation activities, factor knowledge of environmental conservation, and factors of environmental protection model, amounting to 30 items.

3.5.3 Take the questionnaire on factors affecting environmental conservation awareness went collect data online using a data collection period of 1 month with a sample of 219 students. Who is an undergraduate student in the Environmental Education program, Faculty of Environment and Resource Studies, Mahasarakham University by voluntarily participating in online questionnaires via Google.

3.6 Statistics Used in Research

3.6.1 The mean, percentage, frequency, and standard deviation were analyzed as the basic statistics.

3.6.2 Statistics for testing the efficiency of the tool were the Index of item Objective Congruence (IOC), the suitability of measurement form, the discriminant power of measurement form, and the confidence value.

3.6.3 Statistics used to test the hypothesis at the statistical significance level of .05 were correlation and One-Way ANOVA.

4. Research Results

The results of a study of the factors affecting awareness of environmental conservation of undergraduate students can be summarized as follows:

4.1 The results of the study of the factors affecting awareness of environmental conservation of undergraduate students had overall environmental conservation awareness at a high level (\bar{X} =3.88). The factor that resulted in the student’s awareness of environmental conservation the most was the value of natural resources and the environment (\bar{X} =4.08). Followed by knowledge of environmental conservation (\bar{X} =3.89), awareness of environmental conservation news (\bar{X} =3.88), environmental protection model (\bar{X} =3.87), and participation in environmental conservation (\bar{X} =3.85). The factor that students were least aware of in environmental conservation was participating in environmental conservation activities (\bar{X} =3.72). (As shown in Table 1. and Figure 2.)

Table 1. The Results of the Analysis of Factors Affecting the Awareness of Environmental Conservation of Undergraduate Students, Classified by Factor (N=5)

No	The factors affecting awareness of environmental conservation	\bar{X}	SD	The level of environmental conservation awareness
1	Participation in environmental conservation	3.85	0.56	high
2	Awareness of environmental conservation news	3.88	0.65	high
3	The value of natural resources and the environment	4.08	0.62	high
4	Participating in environmental conservation activities	3.72	0.77	high
5	Knowledge of environmental conservation	3.89	0.67	high
6	Environmental protection model	3.87	0.73	high
	Total	3.88	0.57	high

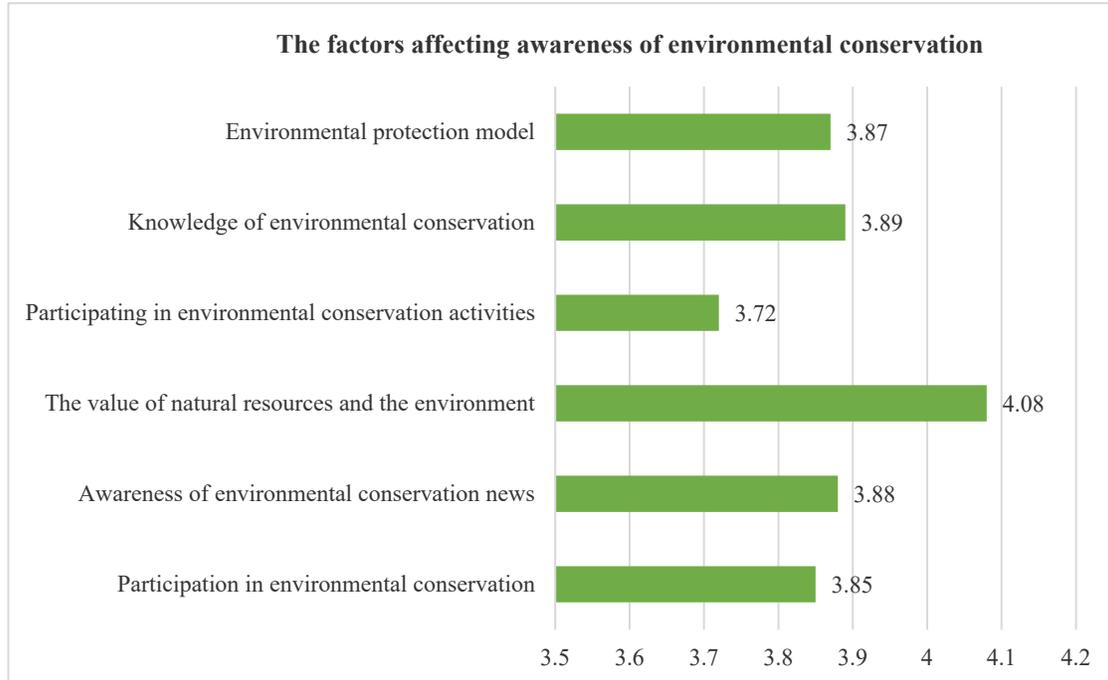


Figure 2. The Factors Affecting Awareness of Environmental Conservation of Undergraduate Students

The results of the analysis of the relationship between factors affecting awareness of environmental conservation of undergraduate students found that factors of participation in environmental conservation, factors for awareness of environmental conservation news, factors of the value of natural resources and the environment, factors for

participating in environmental conservation activities, knowledge of environmental conservation and environmental protection model are correlated in a positive direction statistically significant at the .05 level. (As shown in Table 2.)

Table 2. The Results of the Analysis of the Relationship between Factors Affecting Awareness of Environmental Conservation among Undergraduate Students

No	The factors affecting awareness of environmental conservation	B	SEb	β	t	Sig
1	Participation in environmental conservation	0.033	.000	0.197	45585796.25	.000*
2	Awareness of environmental conservation news	0.033	.000	0.183	65481770.69	.000*
3	The value of natural resources and the environment	0.033	.000	0.207	64599799.12	.000*
4	Participating in environmental conservation activities	0.033	.000	0.164	67460701.03	.000*
5	Knowledge of environmental conservation	0.033	.000	0.192	68382352.34	.000*
6	Environmental protection model	0.033	.000	0.214	54667036.13	.000*

Note. * Statistically significance .05

4.2 The comparative results of awareness of environmental conservation of undergraduate students found that undergraduate students of different genders had no difference in their awareness of environmental conservation. Students with different academic years had different awareness of environmental conservation at statistical significance at the .05 level. (As shown in Table 3.)

Table 3. Results of the Analysis of Factors Affecting Environmental Conservation Awareness of Undergraduate Students and Different Genders and Academic Years Using One-Way ANOVA

Independent variable	Dependent variable	SS	df	MS	F	p
Genders (N=2)	Environmental conservation awareness	12.493	1	0.22	1.00	0.487*
Academic years (N=4)	of undergraduate students	105.40	3	1.88	1.99	0.000*

Note. * Statistically significance .05

5. Discussion

The factors affecting the awareness of environmental conservation of undergraduate students, the researcher has the following issues to discuss the results.

5.1 The Results of the Study Awareness of Environmental Conservation and the Relationship between factors Affecting the Awareness of Environmental Conservation of Undergraduate Students Found That:

5.1.1 Undergraduate students have an overall awareness of environmental conservation at a high level as a result, students have studied and learned the contents of the environment in the field of environmental education, in addition to teaching about the environment. There are also activities, training, and camps that promote environmental conservation enabling students to practice and live in an atmosphere that results in a subconscious mind in preserving the environment, realizing the importance of preserving the environment. This is based on the concept of Bloom, Hastings & Madaus (1971: 20) said awareness is the feeling of contemplating whether there is a need to agree, must do, or agree with until it is manifested as a characteristic of practice. It is the lowest step in the emotional and emotional sector. Awareness is like knowledge, awareness and knowledge are not characteristic of stimuli and it will happen when there is a stimulus to cause awareness. Wimonphan Arphavet and Chantana Papadtha (2011: 97) mention awareness as an expression of the feeling that arises within due to the person who had experience used to know various situations that occurred based on time, experience, and various environmental conditions, that resulted in awareness. Good (1973) describes the process of becoming aware because of intellectual processes. A person who is stimulated by a stimulus becomes aware. Once recognized, concepts will arise and lead to the learning process. Having knowledge of that will lead to awareness and lead to the behavior of the person to that stimulus. This is consistent with the research of Chontira Chawbankrang et al. (2018: 171) was found that students' environmental awareness was high. In terms of perception and attitude towards the environment was at a high level. The environmental behavior was moderate. Sairung Sawsupa (2018: 110) found that the students who studied in the

flipped classroom teaching green chemistry concepts had a good average score of environmental awareness and higher than before the experiment. Linda Kanpakdee et al. (2019: 96) found that the results of the test measured students' environmental awareness after using the knowledgeable environmental training package to enhance environmental awareness for grade 5 students at the highest level. And Arba'at Hassana, Tajul Ariffin Noordina and Suriati Sulaiman. (2010) it was found that the level of environmental awareness according to the concept of sustainable development among secondary school students in Hulu Langat District, Selangor, Malaysia was high. And M. Sivamoorthy, R. Nalini, and C. Satheesh Kumar. (2013) it was found that the students at colleges of Dindigul district functioning under Madurai Kamaraj University (A State University of Tamil Nadu) had a high level of environmental awareness.

5.1.2 The relationship of factors affecting the awareness of environmental conservation of undergraduate students had a positive relationship sorted from the factors that affect the awareness of environmental conservation from the most to the least as follows:

1) The value of natural resources and the environment affects the awareness of environmental conservation of undergraduate students at a high level. The relationship of factors affecting awareness of environmental conservation of undergraduate students was positively correlated. Because environmental education students are taught about natural resources and the environment. Have been instilled in knowledge about the environment, attitudes, attitudes, and values that are good for the environment. Awareness of environmental problems, skills for solving environmental problems participation in solving environmental problems, and evaluation of environmental solutions. As a result, students realize the value of natural resources and the environment to achieve a sustainable quality of the environment and quality of life. This is based on the concept of Sasina Para (2014), natural resources are things that occur naturally. Which humans use in one way or another, including water, forests, wildlife, air, minerals, sunlight, etc. Kasem Chankaew (2015: 30), environment refers to what surrounds us. The environment can be animate or inanimate. It can be something that happens naturally or is man-made. It can be something concrete or abstract. These environments influence each other and are a factor in helping each other systematically. Suwicha Raksasorn (2015:1234), environmental conservation awareness means feeling the importance of preserving the environment. Preserving the environment consists of seeing the benefits, efficient use of resources, and controlling the release of waste to nature. This is consistent with the research of Hathairat Watthanapruek (2019) it was found that tourists were aware of the appreciation and cherishing of resources and the aspect of sustainable use of resources was at the highest level. Wuttisak Boonnan, Churairat Kurukhot and Sombat Apmaraka (2015: 174-190) found that undergraduate students when they were taught biology and integrated environmental biology practice, had a growing awareness of environmental conservation. And K. Balasubramanian (2022) it was found that the level of awareness towards the conservation of natural resources of B. Ed students is moderate.

2) The knowledge of environmental conservation affects the awareness of environmental conservation of undergraduate students at a high level. The relationship of factors affecting awareness of environmental conservation of undergraduate students was positively correlated. Knowledge is an individual's experience, talent, or intuition to understand things. It is knowledge that cannot be expressed in words, or in writing easily, such as work skills, craftsmanship, or critical thinking. (Pornthida Wichienpanya (2004: 22) Same as Kongsak Thatthong (2016: 13) discussed conservation guidelines for sustainable use is the use of resources in nature and the environment in the right amount, not too much. By using the right technology and with minimal or no waste from use. Sustainable use will cause minimal impact on resources and the environment, allowing resources and the environment to recover or regenerate in time with human needs. This is consistent with the research of Peeraya Chuenwong (2020) was found that knowledge and understanding of wastewater management in the community affected the awareness of wastewater management in the community. And N. Humaida. (2019) it was found that ecocentrism needs to be promoted more in academics for sustainable use of natural resources not only for the present generation but also for the future generation.

3) Awareness of environmental conservation news affects the awareness of environmental conservation of undergraduate students at a high level. The relationship of factors affecting awareness of environmental conservation of undergraduate students was positively correlated. This is based on the concept of Onanong Sawatburi (2012), Communication is a link the idea between the sender and the receiver through the media, which is the vehicle for conveying the message to the receiver. Kittipong Jirawatwong (2012) environmental communication must be consistent with the communications policy. Including strategies and objectives of environmental communication as defined, including situation analysis, goal setting for communication, geographic scoping, and determination of environmental information data. Prayoon Wongchantra (2016) communication can also be developed in various forms of media that make it easier to understand communication in terms of the use of print media, the use of

technology, and the use of media through the transfer process of environmental education. This is necessary for good communication in order to stimulate the audience to be alert in terms of knowledge, attitude, participation, practice, and awareness of the environment by using media as a means of transferring knowledge. This is consistent with the research of Teeradet Chumanee (2014: 3) was found that, in general, the people of Ban Pred Nai community, Huang Nam Khao Sub-district, Mueang District, Trat Province, have a high level of conservation of natural resources and mangrove forest environment and news about environmental conservation from newspapers. Atjima Sampaongern (2018-2019: 87) found that the form of communication to create participation in the conservation of forest and wildlife resources through the Facebook Page of the Department of National Parks, Wildlife and Plant Conservation was organizational communication. The communication form of the page also presented picture videos, articles, events, and discussions. Nattawut Khampathueang (2015) found that the process of raising awareness through short film advertisements consisted of 3 steps: preparation, the effective process gives young people knowledge, attitudes, and good practices in forest conservation. It can be used as a guideline for developing students to be more attentive to the environment. Therefore, it should be encouraged and recommended to be applied to young students in other areas. Elham Shahi et al. (2021) found that increasing knowledge and awareness of students affected behavior change and participation in environmental conservation. Besides, students' most important information resource about the environment was the internet. Roman Novotný et al. (2021) found that social networks and the internet are used as the main source of environmental information and should be used as a means of raising environmental awareness among students.

4) The environmental protection model affects the awareness of environmental conservation of undergraduate students at a high level. The relationship of factors affecting awareness of environmental conservation of undergraduate students was positively correlated. According to the concept of Somnuk Chaitham (1999), resource conservation is an important matter that can be accomplished by cooperation from all parties to create love and cherish. Recognize the importance and necessity of conserving natural resources. It is essential that human beings have knowledge and understanding of nature and bring various technologies to help use resources in a cost-effective way. So that natural resources can benefit humanity as much as possible for as long as possible. Kanokwan Ruangrakrian (2008) Awareness is about sensitive behavior in terms of feelings and emotions. Therefore, in order to implement measurements and assessments, specific principles and techniques are required to accurately measure awareness. This is consistent with the research of Amornsiri Duangdee (2012) studied awareness and factors affecting tourist awareness towards firefly conservation. It was found that valuing firefly conservation and knowledge about firefly conservation affected the awareness of tourists. Mariyam Chete (2013) studied factors related to environmental conservation in schools of junior high school students: a case study of Thammawittaya Foundation School, Muang District, Yala Province. It was found that the student's behavior in environmental conservation was at a moderate level. Ivana Bassi et al. (2019) found that people are aware of the environment in the Alpi area, Julian Prealps Natural Park, in the region of Friuli Venezia Giulia (Northeast Italy), for example, well-being is associated with green spaces and others and people can change things to solve environmental problems. People can change things to solve environmental problems.

5) Participation in environmental conservation affected the awareness of environmental conservation of undergraduate students at a high level. The relationship of factors affecting awareness of environmental conservation of undergraduate students was positively correlated. According to the concept of Prapanpong Chinnapong (2008), participation results from consensus on needs and direction of change. There will be enough consensus to initiate a project for action. Santichai Uechongprasit (2008) Personnel participation is an opportunity for personnel to participate in initiatives, decision-making in operations, and joint responsibilities in various matters. Which has an impact on the personnel themselves, causing the personnel to participate in the development to solve the problem. And bring about better living conditions for personnel. Parichart Walaisathien, et al. (2000) Participation in the development process involves allowing people to participate in the development process from the beginning to the end of the project, including jointly searching for planning problems, local resource mobilization decisions and technology, monitoring, and evaluation. This is consistent with the research of Somsanguan Passako (2010: 119-141) found that the overall participation in the Chi River conservation was moderate. Management of the Chi River should be provided to the public, local administrative organizations, and government agencies to take part in managing the sustainable use of the Chi River. Nattida Chaisongkram and Yutthapong Leelakitpaisan (2017: 81 - 98) found the participation of people in the environmental conservation of Sampran municipality, Nakhon Pathom Province, the overall level is moderate. Meena Laiphrakpam, Sayam Aroonsrimorakot, and Aribam Rama Shanker (2019) found that environmental education increases student awareness which leads to behavioral change in environmental conservation. Genalyn P. Lualhati (2019) found that professors at public universities in the Philippines

are involved in waste management, the conservation of resources, and the environment is moderate.

6) Participating in environmental conservation activities affected the awareness of environmental conservation of undergraduate students at a high level. The relationship of factors affecting awareness of environmental conservation of undergraduate students was positively correlated. This is in accordance with the concept of Prayoon Wongchantra (2016). Environmental activities are activities that present knowledge of environmental conservation in the form of learning activities that emphasize student participation. Taweethong Hongwiwat (1984) How effective the development of people's participation in the community can be implemented depends on various factors. It must adhere to the needs and problems of the people. Activities must be carried out in a group manner to build group synergies in accountability. Build a mutual relationship between group members. Cultivate altruistic attitudes and behaviors, work sacrifices for the benefit of the public rather than the individual. According to the concept of Jakkaphong Puangngamchuen (2013), there are 4 indicators for participation in decision-making, participation in operations, participation in receiving benefits, and participation in the evaluation. Suwakon Phakiewai et al. (2011: 23-33) found that there were 6 factors related to conservation behavior while participating in the natural resource and environmental conservation camp activities, namely: conservation knowledge, intrinsic motivation for thinking that natural resources and the environment are important and have a sense of pride when showing conservation behavior. Ekaluck Thanacharoenpisan et al. (2011: 209) found that the factor related to environmental awareness was environmental training and knowledge and understanding of the ISO 14001 environmental management system. Suwicha Raksasri (2015) found that recreational activities in developing environmental awareness of waste for grade 5 students were at a high level. Mustafa Yeşilyurt (2020) found that the students who had studied environmental education and had done painting activities could reflect their environmental awareness at a high level.

5.2 Comparing students' awareness of environmental conservation found that undergraduate students of different genders had no difference in environmental conservation awareness. As a result of environmental education students, both females and males have received knowledge. Most of them do research and participate in environmental conservation activities. As a result, students, regardless of gender, have no difference in their awareness of environmental conservation. According to the concept of Kasem Chankaew (1993), conservation refers to the preservation and use of natural resources and the environment in order to provide high quality to satisfy human beings forever. or another meaning is It is used according to needs and saved for future use. Kunwadee Sudla (2007) Awareness is the expression of feelings, opinions, and the subconscious mind. It is a personal state of understanding and evaluating situations that happen to oneself based on experiences, events, duration, and environmental conditions as factors that raise awareness. This is consistent with the research of Kongporn Nimcharoenchaikul, Thongchai Nilkham, and Paitoon Suksringam (2015) found that students of different genders had no difference in awareness of the use of knowledge about environmental laws in waste management. Chuleewan Praneetham (2021) found that the gender factor was not related to the awareness of environmental conservation. D. Satyanarayana (2021) found that both males and females have equal awareness of the environment. Dola Das et al. (2021) found that male and female students had no difference in awareness and perception of the environment. R. Danielraja (2019) found that existed no significant difference in the mean scores of environmental awareness between the students in terms of gender.

Undergraduate students with different academic years had different awareness of environmental conservation. As a result, each year, students will be taught in the environment in a hierarchical order. Starting from the knowledge of the environment and principles of environmental education. And when the year is higher, there will be more learning activities that promote environmental conservation. This is in accordance with the concept of Saowanee Chantee (2003) which mentions the awareness of environmental conservation, meaning the expression of consciousness that shows that he is satisfied and wants to maintain the care, without destroying the environment, increasing the number of environments and dissemination of knowledge of environmental conservation to others. Thitana Khaemane (2003) Awareness is a process that encourages learners to pay attention, pay attention, recognize and appreciate the phenomena or behaviors that occur in society. Both concrete and abstract. This is consistent with the research of Phrathepsuri Chankhao and Piyapong Chanmaimun (2020) found that students with different education levels after participating in the waste management learning activity had different consciousnesses. Mariyam Chetae and Wisak Pujinda (2013:39-50) found that students with different grade levels had different environmental conservation in schools. Imad Tawfiq Sa'di (2019) found that Saudi students of different years had different environmental awareness and knowledge.

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