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ENVIRONMENTAL ATTITUDES IN UNIVERSITY STUDENTS AS A TOOL TO REDUCE ENVIRONMENTAL PROBLEMS

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Abstract: The recovery and protection of the environment is a challenge facing our society, so it is necessary to understand not only the physical phenomena that cause the problem, but also to recognize and accentuate the social determinants that cause environmental behavior, since it is responsible to determine the beliefs, attitudes and environmental values, that through Environmental Education, acquire awareness, learn values, behaviors, conducts and tools such as environmental attitudes. Therefore, the objective of this research is to know the level of environmental attitudes of the University students that will serve as a tool to reduce environmental problems. The instrument used was the Children's Attitudes Toward the Environment Scale, and it was applied to 150 university students, with an age range between 18 and 25 years, of both genders. The results found were a higher percentage in the average level of environmental attitudes, so it is important to continue strengthening environmental attitudes through Environmental Education so that students can provide solutions to existing problems.

Keywords: Environmental education, environmental attitudes, environmental issues, environmental behavior, environmental values

ENVIRONMENTAL ATTITUDES IN THE UNIVERSITY AS A TOOL TO DECREASE ENVIRONMENTAL PROBLEM INTRODUCTION

Currently, the recovery and protection of the environment is one more challenge for society, however, the government has assumed a large part of this task, through the generation of regulations and public policies that help regulate the negative environmental impacts that society makes, but it is necessary to be able to understand not only the physical

phenomena that cause the problem, but also the environmental attitudes of the population (Ministry of the environment, 2013), with Environmental Education being a possible solution (Martínez, 2010).

Environmental education is responsible for environmental awareness, values, behavior, behaviors and attitudes, thinking of the environment as a whole, not only in natural aspects, but also in economic, social and political aspects and to be able to achieve a balanced way. (Martinez, 2010)

ENVIRONMENTAL EDUCATION

Environmental Education begins in “the industrial revolution” (Pita, 2016), but it was not until 1972 at the United Nations Conference in Stockholm, Sweden (Vargas, Vázquez, Gutiérrez, Vargas and Fernández, 2010), where it was raised growth, development and protection of the environment (Vargas, Vázquez, Gutiérrez, Medellín and Velázquez, 2012), in order to have a balance on the planet. (Moreno, 2008).

However, it is not until 1975 with the United Nations Environment Program (UNEP), where education is given as a possible solution to environmental problems, since it is in charge of planning, coordinating, investigating and training the teachers in environmental issues. (Moreno, 2008)

But in 1984, it was observed that it was not enough and the World Commission on Environment and Development was created, which had the objective of making a report on what was happening and proposing precise actions to face the problem (Cantú, 2015).

However, it is not until 1987 in Moscow, where the concept of Environmental Education is defined, as a process in which individuals and communities can acquire awareness of their environment and thus understand knowledge, through values and attitudes that determine the ability to act individually or

collectively in solving environmental problems and avoiding future problems (Moreno, 2008), which is why in the Declaration on the Environment and Development, held in 1992, the 27 principles were written focusing on issues of the environment such as water, food, green economy, energy, etc. (Cantú, 2015), as well as an approach towards something more sustainable, integrating the social, environmental, economic and political aspects (Puente, Rodríguez and López, 2012), these principles were added in the document called Agenda 21, and the fundamental bases of “sustainable development”, which is to use the needs of the present without compromising the needs of future generations. (Cantu, 2015)

But it was not until 2002 in Johannesburg, South Africa, where the World Summit on Sustainable Development took place, whose objective was to find strategies to solve environmental problems in order to achieve a better quality of life, to satisfy basic needs, such as food, water, sanitation, energy and water, but taking care of natural resources to achieve sustainable development, in turn it is recommended in the General Assembly of the United Nations that the issue of education be taken care of, for which reason it is declared the Decade of education in 2005-2014, where the governments of all countries are invited to encourage society to care for the environment and propose plans on environmental education (Cantú, 2015), being an alternative for promote sustainable development (Puente, Rodríguez and López, 2012). According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), it mentions that it is through the study plans, since they may be in charge of promoting teaching and learning in education towards the future. sustainable development and incorporate the contents to the educational reform to strengthen the social and productive sectors (Cantú, 2015), where an educational model is proposed with

a vision of culture, values and principles and their union with the different aspects of life. This model must incorporate three aspects: the pedagogical, the philosophical and the strategies; having a coherence between them to be able to promote the development towards a formal and non-formal education. (Puente, Rodríguez and López, 2012)

ENVIRONMENTAL ATTITUDES

Environmental attitudes, defined in environmental psychology are: “the favorable or unfavorable feelings that one has towards some characteristic of the environment or towards a problem related to it”, on the other hand, Miranda (2013), says that Taylord and Todd, the defined as “a direct determinant of the predisposition towards actions in favor of the environment”. (2013, p.99) However, for Espejel and Flores (2012) environmental attitudes are opinions that can be held in relation to protecting the environment and conserving resources, influencing the environmental behavior that people carry out individually. or collective in favor or against for the care of the environment “- from this point of view, various theoretical models arise in relation to attitudes, beliefs, behavioral intention and behavior that seek to explain and describe the performance of responsible behaviors with the environment environment (Álvarez and Vega, 2009).

In turn, there are theories that study environmental attitudes, such as:

- The theory of Reasoned Action was expanded by the Theory of planned behavior, which tries to observe the subject to be studied, due to the limitations of the first theory, since the subjects did not have voluntary controls over their behaviors, they did not know whether to accept or reject which proposal
- The theory of planned behavior was developed to predict and explain the

behavior of individuals, but with specific variables such as attitude, norms and intentions, but a new variable is added such as perception, which deals with the ease or difficulty of carrying out carry out a behavior, adding the experience acquired either positive or negative.

- Model of values - Beliefs - Norms, this model is divided into three categories: beliefs, evaluated through an ecological paradigm and awareness of the responsibility of the individual; values, which are divided into altruistic, biospheric and egoistic; and finally the personal norms, which force the individual to act out of obligation and lead to a behavior, but also include costs and benefits to carry out environmental behaviors, such as: water conservation, noise, biodiversity, resources natural resources, energy conservation, waste, among others. (Carballo, Maldonado and Audencia, 2018)

However, the investigations that have been carried out by different authors such as Espejel and Castillo (2008) mention that the way to achieve that students and the community itself can strengthen care towards the environment, and with it environmental attitudes. positive is through involvement with environmental projects and issues, as well as with strategies that can sensitize individuals.

However, Jacinto and Rodríguez (2009) measured environmental attitudes and behaviors in Nursing at a Public University in Northern Peru in a sample of 143 students, finding that nursing students have a high interest in the environment and a verbal commitment to inform people the importance and effects of environmental problems.

Similarly, Amérigo, García and Córtes (2017), in their study Analysis of pro-environmental attitudes and behaviors: an exploratory study with a sample of Brazilian

university students, found as a result the need to have multidimensional approaches, giving as a greater proposal feedback to students on environmental issues, in order to raise interest in the environment.

Although Vargas, Maldonado, Cruz and Aguilar (2012), in their study of environmental attitudes and behaviors in Psychology and Architecture students in the City of Oaxaca, Mexico, found that the pro-environmental attitudes of Psychology students have a level appropriate and according to the environmental behavior of the architecture career, 100% have an inadequate level, therefore concluding that you can have environmental attitudes, but that does not mean that their behavior changed towards something more positive, for Since there is no correlation between these two variables, what they suggest is to add the subject of environmental psychology, due to the lack of socio-environmental values that the analyzed population presents.

Therefore, the study of attitudes is very interesting, since the behavior of the population can be observed, and if it works, it can be modified or adapted towards something more positive towards the environment (Pérez-D and Pérez-Manzano, 2018), hence the importance of knowing the level of environmental attitudes of university students, which will serve as a tool to reduce environmental problems, and thus create awareness to provide solutions to existing problems.

METHODOLOGY

A descriptive-quantitative research methodology was carried out and the Children's Attitudes Toward the Environment Scale [CATES] instrument was applied, which consists of 25 items with a Likert-type response, ranging from 5 to 1, being the highest. the lower environmental attitude

respectively. The instrument contemplates both behavioral, affective and cognitive elements for attitude and contains a reliability of $\alpha = 0.70$. The response time was between 15 to 20 minutes and the database was analyzed in the statistical package SPSS version 22. The instrument was applied to a random sample made up of 150 university students, these being 42% women and 58% men, from both shifts and in an age range of 18 to 25 years.

The instrument identifies environmental attitudes in five environmental issues, such as: 1) Environmental conservation, in relation to measures and actions taken to comply with it, 2) Recycling, which is directed in the first instance to find out if they do it and what consequences or attributions this action is believed to have in the environment, 3) Rights/Protection of animals, attributed to the knowledge and awareness that they have on this subject, 4) Appreciation of nature, aimed at the way in which the society collaborates and contributes to nature through its actions and 5) Pollution, attributed to the way in which the actions and behaviors of society favor or eradicate pollution.

And according to their range of the level of environmental attitudes, we have: (see table 1).

RESULTS

According to the objective of this research, it is observed that university students have a high environmental attitude with 38%, a medium environmental attitude with 44% and finally a low environmental attitude with 18% (See table 2).

The following graph shows in a better way the level of environmental attitudes of university students (Graph 1)

On the other hand, it is always important to be able to correlate the results with the different sociodemographic variables, so when making a comparison between the

gender of university students, it was possible to observe that the highest percentage was obtained by the female gender at the level of average environmental attitude. with 61% and the male gender obtained 26% and regarding the lower percentage, it was obtained at the level of low environmental attitudes with 9% and 18% of the female and male gender respectively. (See table 3)

Regarding the morning and evening shift, it was found that in the morning shift the level of environmental attitudes is at a high level with 68%, while in the evening shift 59% was obtained, without clutch the low environmental attitudes in the shift. morning were found, with a percentage of 32% and the evening in this area obtained 41% (Table 4)

Likewise, relating the level of environmental attitudes with the age ranges, it was possible to notice that the trend in the level of environmental attitudes averaged in an age range of 18 years with 16% and this level prevailing in all ages with 44 %. (Table 5)

ANALYSIS OF RESULTS

In the results obtained, it can be observed that the level of environmental attitude of the university students is "medium", since they present the highest percentage with 44%, almost approaching the average.

According to gender, it is observed that the female gender has a higher percentage in the level of average environmental attitude with 61% compared to the male gender with 39%, in the high attitude level in the female gender with 52% and in the male gender with 48% and finally the level of environmental attitudes is low, it is found that the female gender has 33% and the male gender with 67%, this being the highest regarding gender.

However, if the shift is observed, it is found that in the morning shift there is a medium level of environmental attitude with 60%.

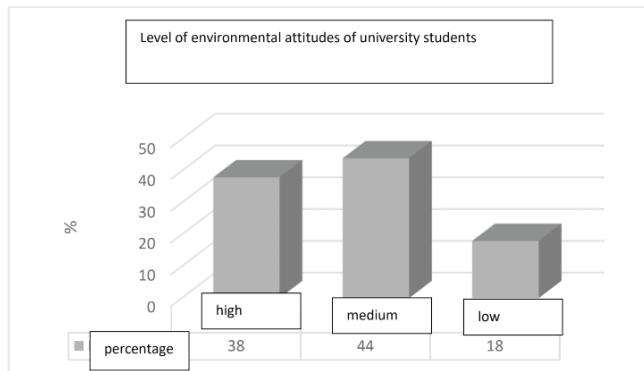
And regarding age, one has that the age of

Environmental Attitude Level	Range
High	81-125
Medium	41-82
Low	25-42

Table 1.- Range of the level of environmental attitudes

Environmental attitude level	Frequency	Percentage
High	57	38
Medium	66	44
Low	27	18
Total	150	100

Table 2.- Level of environmental attitudes of university students



Graph 1.- Level of environmental attitudes of university students

Level of environmental attitudes	Morning shift (%)	Afternoon shift (%)
High	8	14
Medium	60	45
Low	32	41
Total	100	100

Table 4.- Level of environmental attitudes regarding the shift

Attitude Level	Female Frequency/Percentage	Male Frequency/Percentage	Total Frequency/Percentage
High	32/56	25/44	57/100
Medium	40/61	26/39	66/100
Low	9/33	18/67	27/100
Total	81/54	69/46	150/100

Table 3.- Level of environmental attitudes regarding gender

Level of environmental attitudes/ years	18	19	20	21	22	23	24	25	Total
High	10 %	6 %	2 %	5 %	3 %	5 %	4 %	3 %	38 %
Medium	16 %	5 %	3 %	6 %	2 %	6 %	5 %	1 %	44 %
Low	7 %	4 %	2 %	0 %	1 %	1 %	3 %	0 %	18 %
Total	33 %	15 %	7 %	11 %	6 %	12 %	12 %	4 %	100%

Table 5.-Level of environmental attitudes in relation to the age range

18 years has a higher percentage in the level of average environmental attitude with 16%, although in this age range is where the higher percentages are observed with 10% in the high level of environmental attitudes and with 7% in the low level of attitudes with 7%, seeing that it is the highest percentage found in this range of 18 years with 33%.

DISCUSSION OF RESULTS

According to the results found in the various investigations, it is found that students show medium-low environmental behaviors regardless of the place where the sample was taken and as mentioned by Vargas, Maldonado, Cruz & Aguilar (2012), you can have attitudes but not behavior. to carry out actions for the benefit of the environment, which, like this study where they manifest medium and high levels of environmental attitudes in their majority of their percentage, does not mean that students will commit to caring for the planet, but rather that they have to get involved in environmental projects as mentioned by Espejel & Castillo (2008)

CONCLUSIONS

According to the results obtained in this investigation, it can be noted that the student population at the university level, have environmental attitudes at the middle level since the percentages that were obtained in this were predominant at this level, likewise it must be considered that To strengthen environmental attitudes, it is essential to establish Environmental Education as a tool capable of equipping students with skills and positive thoughts towards the environment, since at these levels it is essential and could even be considered as a possible solution to environmental problems. If we add to this the teaching of environmental issues at all educational levels, not leaving it as an isolated science but a multidisciplinary one

to deepen and form tools capable of caring for the environment. And they are invited to participate in environmental projects as mentioned by Espejel & Castillo (2008), such as garbage separation, pet, aluminum and paper recycling, as well as awareness programs to create a link with nature in such a way that they manage to become sensitized, and increase values, such as love, respect, among others, since it will be the legacy that will be left to future generations.

RECOMMENDATIONS

It is recommended to continue promoting environmental issues to students, since these will make them get involved and see the problem more closely, creating awareness among them and they can give proposals for possible solutions or improvements on the planet in order to create a balance between man. Nature.

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