



Environmental Awareness among College Students of Mizoram

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Abstract

Environmental protection has been operationalized into a concept of sustainable development and is sought to be a process of development that discourages the present generation to become better off at the cost of future generation. To make people aware about the need for sustainable development is one of the most important roles of education in the present society. The study analyses the environmental awareness of college students by employing descriptive statistics like mean and standard deviation and inferential statistic i.e., t test. The study revealed that majority of college students in Mizoram had 'High' environmental awareness. Null Hypotheses of the study- 'There is no significant difference between male and female college students in Mizoram with regards to their environmental awareness' and 'There is no significant difference between students coming from rural and urban areas in colleges of Mizoram with regards to their environmental awareness' had been accepted at both .05 and .01 level of significance.

Keywords: *Environment, Education, College Students, Mizoram.*

Introduction

We are living in a world where human beings, the most advanced creature, never hesitate to exploit their environment for the benefit of themselves without considering the effect it may have to humanity as a whole; where environmental protection and conservation is imperative. Man has always taken for granted what is a blessing which comes in the form of our physical and biological environment. Due to rapid development in industries, which leads to improvement in lifestyles and speeding up of resource utility, the natural resources have been massively exploited. The need of modern men keeps on increasing while the storehouse of nature is limited. This has led to a major environmental crisis that poses a great threat to humanity in every part of the world. Manufacturing human day-to-day needs has led

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to pollution of our environment. The irony lies in the fact that while trying to make our lives easy and better, we are plotting our own doom. Awareness about the pollution and protection of environment is crucial so that our resources may be used sparingly and wisely in order to make them last longer.

Environmental issues and rectification for those issues have been included in the curriculum of schools and colleges in our country but we are still lagging behind in taking measures to revive the natural world that we live in. The area of environmental education has been discussed thoroughly at several national and international seminars, workshops and conferences. Most of the people have recognized the urgent need of environmental education, but only some have clear idea and understanding about the concept of environmental education that needs to be taught to the students (Gina et.al. 2020).

Environmental education has been defined in different manner by various persons. The definition of environmental education in the draft of US Environmental Education Act is considered to be very authentic and is frequently quoted. It states:

“Environmental Education is an integral process which deals with man’s interrelationship with his natural and man-made surrounding, including the rate of population growth, pollution resource allocation and depletion, conservation technology and urban and rural planning to the total human environment. Environmental education is a study of the factors influencing ecosystems, mental and physical health, living and working condition, decaying cities and population pressures. Environmental education is intended to promote among citizens the awareness and understanding of environment, our relation to it and the concern and responsible action necessary to assure our survival and to improve the quality of life.”

There is an increasing realization that the human race now stands at the crossroads in choosing the options it has in the areas of environment and development with the help of education. Growth in industrial development is necessary for the growth of a country especially in a third world country like India, but that will no doubt leads to environmental degradation. Sustainable development is a must that we should all opt for. Environmental protection has been operationalized into a concept of sustainable development which implies, ‘meeting the needs of the present generation without compromising the needs of the future generations’. It is sought to be a process of development that discourages the present generation to become better off at the cost of future generation. To make people aware about the need for sustainable development is one of the most important roles of education in the present society.¹

Review of Related Literature

Chan (1996) had conducted a postal survey to 992 secondary students in Hong Kong in order to investigate environmental attitudes. She used Weigel and Weigel (1978)'s environmental concern scale and readiness to engage in various pro-environmental

behaviours including paper recycling at school and at home, using less tissues and less plastic bags. She found out that students had a great concern about the preservation of the environment and were willing to participate in pro-environmental activities. However students were over indulged in modern technology and that had hinder their environmental concern. Pearson correlation coefficient between environmental concern scale and comprehensive behavioural intention was high and positive (0.52). Findings reveal that (a) television and school were the major sources of information regarding environment. Mass media were more important than personal media in the dissemination of environmental information, (b) female students, students belonging to higher education and students who lived in private housing were having more positive environmental attitudes and were more willing to participate in pro-environmental behaviours, and (c) factor analysis disclosed that the environmental concern scale was composed of two factors- 'personal sacrifice' and 'optimism/issue'. Hooda (2016) carried a pilot study where he selected 120 students studying in government and private colleges in Faridabad. For collection of data he employed "Environment pollution attitude scale by Dr. M. Rajamanickam and "Environmental Awareness Ability Measures (EAAM) developed by Praveen Jha. Findings revealed that the students of private colleges were found to be more positive in their attitude towards environmental awareness in comparison with the students of government colleges. Ningrum and Herdiansyah (2018) had conducted a research in which they studied the environmental awareness of 150 college students in one university in Jakarta. In their study, they reported the students' environmental behaviour, and analyse the correlation of some factors towards environmental awareness and behaviour. A questionnaire was developed and tested on students. The data collected from questionnaire was analysed by Spearman test with the help of SPSS. Findings revealed that (a) the level of environmental awareness and behaviours is 'good' among both male and female students, (b) there was a difference in the level of environmental practices among male and female, and (c) college students have good environmental awareness and behaviour. Astalin (2011) did a research among 608 students to find the environmental awareness among higher secondary students and some educational factors affecting it. The students were selected from different board by cluster random sampling technique. The sample consisted of 280 male and 328 female students. The investigator developed a tool called "Paryavaran Jagrukata Prashnavali". Analysis of data was done using Post Hoc Tests, F-test and t- ratio test. The study revealed that there was no difference between the environmental awareness of students belonging to 11th and 12th standard; science students had more environmental awareness in comparison to art stream students; CBSE students had more environmental awareness in comparison to UP Board students; students whose parents were literate, undergraduate, post graduate and research had more environmental awareness in comparison to students whose parents belong to high school and intermediate; and male students had also more environmental awareness than female students.

Gina et al. (2020) had done a study where they conducted an investigation on the environmental awareness of 200 graduate and postgraduate students of various colleges around Kothamangalam, a town in Ernakulam District, Kerala, India in order to assess their attitudes and activities related to environmental concerns. The survey had 22 questions that

tested their knowledge, awareness, behaviour and attitude of college students on environmental pollution which was statistically analysed using IBM SPSS 20. The study was designed in such a way that the students were able to analyse, evaluate and draw inference about concerns related to environmental issues. The study finds out that students had high levels of knowledge of issues about the environmental pollution and comprehend the harmful effects of human activities towards the environment; and the null hypothesis that indicate no significant difference in awareness about environment pollution among college students with respect to gender was retained. The above findings clearly indicate the positive impact of education on environmental awareness. Results of different researches also indicated the presence of a distinctive difference in the awareness and awareness towards the environment among male and female college students in colleges where these researches were undertaken. One other thing which stood out was that such a research has not been done in Mizoram which is a tragic gap in knowledge. Therefore, the researcher thought it would be wise to carry out a research in Mizoram so as to increase data on this subject and also to gather important data that could be of use to policy makers and hopefully contribute to the improvement of the environmental awareness among Mizo youth.

Objectives of the Study

1. To find out the level of environmental awareness of college students in Mizoram.
2. To compare the environmental awareness of male and female students of colleges in Mizoram.
3. To compare the environmental awareness of students of colleges in Mizoram on the basis of their locale.

Operational Definitions of the Key Term Used

1. Environmental Awareness: The knowledge and perception of college students about environmental problems, protection and conservation.

Delimitation of the Study

Due to limitation of time and resources, the present study was delimited to Aizawl City.

Hypotheses

1. There is no significant difference between male and female college students in Mizoram with regards to their environmental awareness.
2. There is no significant difference between students coming from rural and urban areas in colleges of Mizoram with regards to their environmental awareness.

Methodology

The present study is descriptive in nature. Primary data was used to assess the environmental awareness of College students.

Population: The population included all the College Students of Mizoram.

Sample: Cluster Sampling technique was employed for the present study. The sample consisted of hundred and fifty three (153) 6th semester students studying in colleges of Aizawl.

Tool: The investigator made use of Environmental Awareness Ability Measure (EAAM) prepared by Dr. Praveen Kumar Jha (2010) in order to study the environmental awareness of college students in Mizoram. It is a two point scale and has both positive and negative items and contains 51 questions. The scale purports to measure the extent and degree of awareness of people about environmental pollution and its protection. The scale explores the understanding of people about the importance of environment in which they live and how far the efforts of government through various legislations, mass awakening programmes of NGO and other agencies through mass-media, electronic media and print media could achieve their goals.

Scoring of the Scale: There are 51 items in EAAM. Each agreed item carries the value of 1 mark and each disagree item zero but the negative items are scored inversely. Thus on the total scale the scores ranged between 0 – 51.

Norms of the Scale: Norms have been prepared for the EAAM as follows

Level of Environmental Awareness	Range of Scores
High	37 - 51
Average	16 - 36
Low	0 - 15

Data Collection and Analysis

The Scale was administered to college students after taking consent from the sample students and the college teachers. Instruction was given carefully before administering the Scale. Data was analysed using descriptive statistical techniques like Mean, Standard Deviation and inferential statistical technique i.e., t-test.

Data Interpretation and Discussion

Objective 1: To find out the level of environmental awareness of college students in Mizoram.

For finding out the level of environmental awareness of college students in Mizoram, the researchers classified each and every score of the individual students according to the norms given in the manual. The Mean score and Standard Deviation were also computed.

Table 1: Level of Environmental Awareness of College Students in Mizoram

N	Mean	SD	Level of Environmental Awareness			TOTAL
			High	Average	Low	
153	43.06	2.83	146 (95.42%)	6 (3.92%)	1 (0.65%)	153

Looking at Table 1, we can see that majority (95.42%) of college students of Mizoram had high environmental awareness during the time this study was undertaken. Moreover, only

3.92% of them had average environmental awareness and negligible per cent (0.65%) of the students had low environmental awareness.

Objective 2: To compare the environmental awareness of male and female students of colleges in Mizoram.

Table 2: Difference between the environmental awareness of male and female college students of Mizoram

Gender	N	Mean	Standard Deviation	df	't' value	Significance (at 0.05 and 0.01 levels of significance)
Male	90	42.86	4.63	151	0.66	Not Significant at 0.05 and 0.01 levels of significance
Female	63	43.3	3.64			
Total	153					

Table 2 reveals that the Mean score of male students was 42.86 and Standard Deviation was 4.63. The Mean score of the female students was 43.3 and Standard Deviation was 3.64. The t value was 0.66, which was less than the critical t value at both 0.05 and 0.01 levels of significance. Therefore, the null hypothesis which stated that 'There is no significant difference between male and female college students in Mizoram with regards to their environmental awareness' cannot be rejected. Although looking at the Mean score of both male and female students indicates that female students have a slightly better environmental awareness, the difference is not statistically significant which means that there was no significant difference between the environmental awareness of male and female college students in Mizoram.

Objective 3: To compare the Environmental Awareness of students of Colleges in Mizoram on the basis of their locale.

Table 3: Difference between the Environmental Awareness of male and female college students of Mizoram

Locale	N	Mean	Standard Deviation	df	't' value	Significance (at 0.05 and 0.01 levels of significance)
Rural	71	43.0986	5.27	151	0.003	Not Significant at 0.05 and 0.01 levels of significance
Urban	82	43.0964	3.2			
Total	153					

As seen from Table 3 the Mean score of students coming from rural areas was 43.0986 and Standard Deviation was 5.27. The Mean score of students coming from urban areas was 43.0964 and Standard Deviation was 3.2. The t value was 0.003, which was very much less than the critical t value at both 0.05 and 0.01 levels of significance. Therefore, the null hypothesis which stated that 'There is no significant difference between students coming from rural and urban areas in colleges of Mizoram with regards to their environmental

awareness' cannot be rejected. The mean scores of both students coming from rural and urban areas were almost the same with difference of only 0.0042 which is not statistically significant. Thus it can be concluded that there is no significant difference between students coming from rural and urban areas in colleges of Mizoram with regards to their environmental awareness.

Discussion of Findings

The revelation made by this study is quite impressive. It is pleasantly surprising to find out that 95.42% of college students in Mizoram had high environmental awareness, 3.92% had average awareness and only 0.65% of them had low environmental awareness. Based on the present study it can be rightly assumed that the college students of Mizoram had high environmental knowledge and that the Environmental Studies (which is included in the curriculum of Mizoram University at the under graduate level) played an important role in enabling the learners to be aware about the environmental problems, protection and conservation. Another interesting revelation from this study was that there was no significant difference between male and female in their environmental awareness which shows that each of the gender has adequate knowledge about the environment. This finding was in agreement with the studies done by Kara K.W. Chan in 1996 and the one done by Thomas K. Gina et al in 2020 when they study the environmental awareness and environmental practices among the college students in certain parts of India in which they found out that gender does not influence environmental awareness. However this finding is contradictory with the finding of Prashant Kumar Asthalin when he did a study on higher secondary students of UP regarding environmental awareness in 2011 where he found out that male students had more environmental awareness in comparison to female students. This study also reveal that there was no significant difference between the environmental awareness of college students in Mizoram on the basis of locale which means college students of Mizoram hailing from rural and urban areas did not differ in their environmental awareness. This may be the result of having Environmental studies in the curriculum of undergraduate students and the continuous inclusion of environmental studies in the lower stages of education in Mizoram.

Conclusion

The importance of environment has been recognized in India since long. This is also reflected in our Constitution wherein it is stated that it shall be the duty of every citizen to protect and improve the natural environment, including forests, lakes, rivers, wildlife and to have compassion for all living creatures. According to National Policy of Education, "There is paramount need to create a consciousness of environment. It must permeate all ages and all sections of society; beginning with the child, environmental consciousness should inform teaching in schools and colleges. This aspect be integrated in entire educational process." The importance of environmental awareness cannot be over emphasized. We must understand that to improve the environment is to improve quality of life. It is not only a question of air and water pollution. It includes elimination of disease, hunger, malnutrition and poverty, destruction of forests, extermination of wildlife, aversion of soil and accumulation of waste. Hence there is an urgent need for proper management of the environment. Each and everyone

needs to be made aware that we need to curb certain actions that lead to environmental degradation for the betterment of humanity since awareness can bring about desirable attitude and change in the actions of human being.

References

- Chan, K. (1996). Environmental attitudes and behaviour of secondary school students in Hong Kong. Retrieved from (PDF) Environmental attitudes and behaviour of secondary school students in Hong Kong (researchgate.net)
- Gupta, K. R. (2010). Environmental Education in India. Atlantic Publishers & Distributors New Delhi.
- Hooda, S. (2016). A Study of Attitude and Awareness of College Students towards Environmental Pollution. Retrieved from <http://epratrust.com/articles/upload/11.Dr.%20Sehdev%20Hooda.pdf>
- Jha, P. K. (2010). Environmental Awareness Ability Measure. National Psychological Corporation. Agra.
- Ningrum, Z & Herdiansyah, H. (2018). Environmental awareness and behavior of college students in regards to the environment in urban area. Retrieved from https://www.e3s-conferences.org/articles/e3sconf/abs/2018/49/e3sconf_icsolca2018_10004/e3sconf_icsolca2018_10004.html
- Astalin, P. (2011). A Study of Environmental Awareness among Higher Secondary Students and Some Educational Factors Affecting it. Retrieved from http://zenithresearch.org.in/images/stories/pdf/2011/Nov/7_vol-1issue-7%20_%20%20%20P%20K%20ASTALIN%20Paper%20for%20ZENITH.pdf
- Sivamoorthy, M. et al. (2013). Environmental Awareness and Practices among College students. Retrieved from [http://www.ijhssi.org/papers/v2\(8\)/Version-3/CO283011015.pdf](http://www.ijhssi.org/papers/v2(8)/Version-3/CO283011015.pdf).
- Thomas, K. et al. (2020). A study of Awareness and Attitude of College Students towards Environmental Pollution. Retrieved from http://www.plantarchives.org/SPL%20ISSUE%2020-2/363__2167-2171_.pdf

Endnote

ⁱGupta, K. R. (2010). Environmental Education in India.