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A CROSS SECTIONAL STUDY ON ENVIRONMENTAL CONSERVATION AWARENESS AMONG B.ED STUDENT TEACHERS

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INTRODUCTION

In today's era of globalization, we are faced with a lot of societal upheavals including dilemmas pertaining to the environment. Rogayan (2019) reiterated that the earth is now suffering from innumerable afflictions at present caused by egregious human activities that relentlessly denuding the environment. The challenge for everybody is to take the wheel of action and move towards a common cause in preserving life on earth. The growing concern with environmental issues and their impact on general awareness is one of the most noticeable phenomena of the last two decades (Sivamoorthy, Nalini & Satheesh Kumar, 2013). The rapid depletion of the earth's natural resources and the fast degrading environment are the realities which can no longer be denied. These are the grave scenarios that threaten the existence of both man and the earth (Marpa & Juele, 2016).

The Education for Sustainable Development of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) reiterates that education is an indispensable tool towards sustainable development. Environmental education is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems and which has the knowledge, attitudes, commitments and skills to work individually and collectively towards the solution of current problems and prevention of new ones (Puri & Joshi, 2017).

People's awareness has been recognized as a powerful tool in environmental sphere. Information through education has an important impact to alter behaviour (Gonzaga, 2017). Several studies have been conducted to gauge the environmental awareness and practices of students in various levels. Many studies have focused

mainly on the environmental awareness and practices of college students (Sivamoorthy, Nalini & Satheesh Kumar, 2013; Sharma, 2016), tertiary students' environmental awareness in relation to their stream of study and their area of residence (Singh, 2015), college students' level of awareness, attitude and participation in environmental activities (Bhat et al., 2016), intrinsic and extrinsic motivation of tertiary students and their ecological awareness and practice (Milos & Cicek, 2014), the level of environmental awareness and practices on recycling of solid waste of college students (Omran, Bah & Baharuddin, 2017) and the high school students' environmental risk perceptions and environmental awareness levels (Anilan, 2014).

While almost all the previous studies conducted are focused only in describing the extent of environmental awareness and practices of the students, the present study looked into the environmental conservation awareness of B.Ed. student teachers.

STATEMENT OF THE PROBLEM

Environment constitutes a very important part of our life. To understand life without studying the impact of environment is simply impossible. The need to protect environment can be ignored only at our peril. Nature conservation must become a people's movement. To achieve this purpose, environmental knowledge or education is essential among the public. Environmental education is the process of recognizing values and clarifying concepts in order to develop skills and appreciate interrelatedness among human beings, their culture, and their biophysical surroundings. Environmental education also contains practice in decision-making and self-formulating a code of behaviour about issues, concerning environmental quality. Today, environment has become an issue of survival. This land will be ours, as long as the grass grows and the water flows. According to Mahatma Gandhi, "A society can be judged by the way it treats its environment" (1998). Environmental consciousness is not a new concept for our society, which is evident from the accounts of rulers, custodians, visitors, rock and pillar edicts, etc. It is the prime duty of all the human beings to protect the natural environment with the objective to conserve the natural resources and the existing natural environment. Since environment played significant role in human life it is necessary to identify the awareness of environmental education, environmental conservation and management among the student teachers. Since they are the prospective teachers they can inculcate the attitude of students towards conservation of environment and natural resources.

SIGNIFICANCE OF THE STUDY

Environment education is a life-long process that encourages people to explore, raise questions, investigate issues and seek solutions regarding environmental and related social problems. It is universally accepted that environmental education

should be interdisciplinary. Regarding environmental education and preserving the environment from pollution and manmade disasters, students and teachers and all the human beings should have some environmental awareness. By conducting this study, student teachers may develop their positive attitude towards environmental protection. They may teach and inculcate their students regarding environment, protection of natural resources and avoiding global warming and other hazards. This study will help to foster clear awareness and concern about economic, social, political and ecological interdependence among the student teachers. It will provide the student teachers with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment. It will assist them to create new patterns of behaviour of individual groups and society as a whole towards the conservation of environment.

OBJECTIVES

- To find out the level of environmental conservation awareness among B.Ed student teachers.

- To find out the significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their gender, locality, educational status, stream of study, year of study and age.

HYPOTHESES

- The level of environmental conservation awareness is high among B.Ed Student Teachers.

- There is no significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their gender, locality, educational status, stream of study, year of study and age.

METHODOLOGY

Research methodology is a way to systematically solve the search problem. It may be understood as a science of studying how research is done scientifically with appropriate method. All those methods which are used by the researcher during the course of studying the research problem are termed as research methods. In this study Survey Method has used to collect the data from target group. The variables used in this study are classified into main variable and demographic variables. The main variable of the study is Awareness of Environmental Conservation and the demographic variables includes gender, locality, educational qualification, stream of study, year of study and age.

The population of the present study consisted of all the B.Ed student teachers studying B.Ed course in teacher education institutions in Dharmapuri district and the sample consisted of 320 B.Ed., student teachers selected by using simple random sampling technique. In order to collect data from the sample, the researcher

has constructed an Environmental Conservation Awareness Questionnaire and established the standardisation norms. The questionnaire was administered among the sample and data were collected. For the analysis of data, the investigator has used Descriptive analysis (Mean, Standard Deviation) and Differential analysis (t-test,).

DESCRIPTIVE ANALYSIS OF THE DATA

Hypothesis 1:

The level of environmental conservation awareness is high among B.Ed Student Teachers.

Table 1: Level of Environmental Conservation Awareness among B.Ed Student Teachers

Maximum Score: 200

Demographic Variable		Number of Sample (N)	Mean	SD
Gender	Male	72	159.37	10.91
	Female	248	163.75	10.29
Locality	Rural	192	161.99	11.12
	Urban	128	162.97	10.96
Educational Status	UG	238	160.72	12.48
	PG	82	163.77	10.08
Stream of Study	Arts	204	161.88	10.95
	Science	116	163.28	10.38
Year of Study	First	188	160.74	09.47
	Second	132	164.35	11.88
Age	Below 30	245	162.66	10.85
	Above 30	75	161.76	11.28
Overall		320	162.56 (81.28%)	10.52

The Table 1 showed the Mean and Standard Deviation values that revealed the level of environmental conservation awareness among B.Ed student teachers. The overall mean value 162.56 (81.28%) revealed that the B.Ed student teachers had high level of environmental conservation awareness. It determines that B.Ed student teachers have more concern and positive view on conservation of natural environment. Hence the hypothesis is accepted.

DIFFERENTIAL ANALYSIS OF THE DATA

Hypothesis 2:

There is no significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their gender.

Table 2 : Differences in Level of Environmental Conservation Awareness among B.Ed Student Teachers based on their Gender

Demographic Variable		Sample	Mean	SD	t-value	Remark
Gender	Male	72	159.37	10.91	3.04	S
	Female	248	163.75	10.29		

S = Significant at 0.05 level

It is revealed from the Table 2 that the mean value of male B.Ed student teachers is 159.37 and female B.Ed student teachers is 163.75. The mean score differences revealed that female student teachers had more favourable and higher level of environmental conservation awareness than their male counterparts. Since the calculated t-value 3.04 is greater than the tabulated value 1.96 at 0.05 level of significance, it is stated that there is a significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their gender. Hence the null hypothesis is not accepted.

Hypothesis 3:

There is no significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their locality.

Table 3: Differences in Level of Environmental Conservation Awareness among B.Ed Student Teachers based on their Locality

Demographic Variable		Sample	Mean	SD	t-value	Remark
Locality	Rural	192	161.99	11.12	0.78	NS
	Urban	128	162.97	10.96		

NS = Not Significant at 0.05 level

The above Table 4 showed that the mean value of rural B.Ed student teachers is 161.99 and urban student teachers is 162.97. Since the calculated t-value 0.78 is lesser than the tabulated value 1.96 at 0.05 level of significance, it is stated that there is no significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their locality. Hence the null hypothesis is accepted.

Hypothesis 4:

There is no significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their educational status.

Table 4: Differences in Level of Environmental Conservation Awareness among B.Ed Student Teachers based on their Educational Status

Demographic Variable		Sample	Mean	SD	t-value	Remark
Educational Status	Under Graduation	238	160.72	12.48	2.23	S
	Post Graduation	82	163.77	10.08		

S = Significant at 0.05 level

It is revealed from the Table 4 that the mean value of student teachers having under graduation degree is 160.72 and post-graduation degree is 163.77. The mean score difference stated that student teachers completed post-graduation had more favourable and higher level of environmental conservation awareness than their student teachers having under graduation. Since the calculated t-value 2.23 is greater than the tabulated value 1.96 at 0.05 level of significance, it is stated that there is a significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their educational status. Hence the null hypothesis is not accepted.

Hypothesis 5:

There is no significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their stream of study.

Table 5: Differences in Level of environmental conservation awareness among B.Ed Student Teachers based on their Stream of Study

Demographic Variable		Sample	Mean	SD	t-value	Remark
Stream of Study	Arts	204	161.88	10.95	1.14	NS
	Science	116	163.28	10.38		

NS = Not Significant at 0.05 level

The above Table 5 showed that mean score difference in the level of environmental conservation awareness between B.Ed student teachers studying in Arts stream and Science stream. The mean value of student teachers in arts stream is 161.88 and science stream is 163.28. Since the calculated t-value 1.14 is lesser than the tabulated value 1.96 at 0.05 level of significance, it is stated that there is no significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their stream of study. Hence the null hypothesis is accepted.

Hypothesis 6:

There is no significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their year of study.

Table 6: Differences in Level of Environmental Conservation Awareness among B.Ed Student Teachers based on their Year of Study

Demographic Variable		Sample	Mean	SD	t-value	Remark
Year of Study	First	188	160.74	09.47	2.90	S
	Second	132	164.35	11.88		

S = Significant at 0.05 level

The above Table 6 showed that the mean value of student teachers studying in first year is 160.74 and student teachers studying in second year is 164.35. The mean score difference showed that student teachers studying in second year had more favourable and higher level of environmental conservation awareness than first year students. Since the calculated t-value 2.90 is greater than the tabulated value 1.96 at 0.05 level of significance, it is stated that there is a significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their year of study. Hence the null hypothesis is not accepted.

Hypothesis 7:

There is no significant difference in the level of environmental conservation awareness among B.Ed student teachers based on their age.

Table 7: Differences in Level of Environmental Conservation Awareness among B.Ed Student Teachers based on their Age

Demographic Variable		Sample	Mean	SD	t-value	Remark
Age Group	Below 30	245	162.66	10.85	0.61	NS
	Above 30	75	161.76	11.28		

NS = Not Significant at 0.05 level

The above Table 7 showed that mean score difference in the level of environmental conservation awareness among the B.Ed student teachers based on their age group. The mean value of student teachers with below 30 years of age group is 162.66 and above 30 years of age group is 161.76. Since the calculated t-value 0.61 is lesser than the tabulated value 1.96 at 0.05 level of significance, it is stated that there is no significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their age group. Hence the null hypothesis is accepted.

FINDINGS AND DISCUSSIONS OF THE STUDY

The findings from the results revealed that B.Ed student teachers have high level of environmental conservation awareness and it determined that they have more concern and positive view on conservation of natural environment.

- Result based on the gender wise analyses stated that there is a significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their gender. The mean score differences revealed that female student teachers had more favourable and higher level of environmental conservation awareness than their male counterparts.

- Result based on the locality wise analyses stated that there is no significant difference existed in the level of environmental conservation among B.Ed Student teachers based on their locality. Both the rural and student teachers had high level of environmental conservation awareness and concerns.

- Result based on the educational status of student teachers stated that there is a significant difference existed in the level of environmental conservation awareness among B.Ed Student teachers. The mean score difference stated that student teachers completed post-graduation had more favourable and higher level of environmental conservation

awareness than student teachers having under graduation.

- It is revealed from the result that there is no significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their stream of study. The mean value of student teachers in science stream had higher level of awareness than arts stream student teachers.

- It is disclosed from the result that there is a significant difference existed in the level of environmental conservation awareness among B.Ed student teachers based on their year of study. The mean score difference showed that student teachers studying in second year had more favourable and higher level of environmental conservation awareness than their first year students.

- The result from the analysis based on student teachers' age group showed that there is no significant difference existed in the level of environmental conservation awareness among B.Ed student teachers.

The results clearly stated that some of the factors like gender, educational qualifications and year of study had an effect on the mean score differences in environmental conservation awareness among the student teachers. On the other hand, locality of students, stream of study and age had no effect on mean score differences in environmental conservation awareness.

Based on the findings it is recommended that teachers, parents and educators should create awareness among their children regarding environmental education, conservation of environment and natural resources from the grass root level irrespective of their demographic background. It is their duty to enhance the positive attitude towards conservation of environment.

CONCLUSION

The study revealed that B.Ed Student teachers have higher level of environmental conservation awareness. Though there are differences existed between the groups in their level of environmental awareness, it can be eradicated by conducting awareness programmes on environmental protection, environment management and various issues related to conserve the natural environment irrespective of the demographic background of the student teachers. Since B.Ed Student teachers are going to be the teachers in near future they should have positive attitude towards environmental conservation and they should teach environmental education among their students.

REFERENCES

Anilan, B. (2014). A study of the environmental risk perceptions and environmental awareness levels of high school students. *Asia-Pacific Forum on Science Learning and Teaching, 15* (2), 1-23.

Bhat, B.A., Balkhi, M.H., Ashraf Wani, M., Nusrat, Tiku, A., Ganai, B.A. & Sidiq, T. (2016). Environmental awareness among college students of Kashmir valley in the state of Jammu and Kashmir and their attitude towards environmental education. *International Journal of Innovative Research and Review, 4*(2), 20-25.

Danilo, V. Rogayan JR., & Eveyen Elyonna D. Nebrida. (2019). Environmental awareness and practices of science students: Input for ecological management plan. *International Electronic Journal of Environmental Education, 9* (2), 106-119.

Department of Environment and Natural Resources, (2016). June is Environment Month. Retrieved from https://goo.gl/dVReE6.

Garcia, E.C., & Luansing, B. (2016). Environmental awareness among select graduating college students in Region IV-A. *LPU-Laguna Journal of Multidisciplinary Research, 5*(1), 1-10.

Gonzaga, M.L. (2017). Awareness and practices in green technology of college students. *Applied Mechanics and Materials, 848*, 223-227. doi:10.4028/www.scientific.net/AMM.848.223.

Marpa, E. P., & Juele, M.H.R. (2016). Environmental awareness and practices among high school students: Basis for disaster preparedness program. *Applied Mechanics and Materials, 848,* 240-243.

Milos, D., & Cicek, F. (2014). Findings on motivation and the environmental awareness and practice of future engineers in Zagreb. *Interdisciplinary Description of Complex Systems 12*(2), 119-136.

Omran, A., Bah, M., & Baharuddin, A.H. (2017). Investigating the level of environmental awareness and practices on recycling of solid wastes at university's campus in Malaysia. *Journal of Environmental Management and Tourism, 8*(3), 554-566. DOI:10.14505/jemt.v8.3(19).06

Puri K., & Joshi R. (2017). Ecoclubs: An effective tool to educate students on biodiversity conservation. *Biodiversity International Journal, 1*(5):50–52.

Rogayan, D.V. (2019). I heart nature: Perspectives of University students on environmental stewardship. *International Journal of Engineering, Science and Technology, 1*(1), 10-16.

Sharma, H.K. (2016). Environmental awareness and practices in Bulandshahr. *Imperial Journal of Interdisciplinary Research, 2*(11), 1922-1926.

Singh, R. (2015). Environmental awareness among undergraduate students in relation to their stream of study and area of residence. *Scholarly Research Journal for Interdisciplinary Studies, 4*(26), 2830-2845.

Sivamoorthy, M., Nalini, R. & Satheesh Kumar, C. (2013). Environmental awareness and practices among college students. *International Journal of Humanities and Social Science Invention, 2*(8), 11-15.