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Attitude of prospective teachers towards environmental education in relation to gender, locale and stream

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Abstract

Environmental degradation and climate change are global phenomena where actions in one part of the world impact ecosystems and populations across the globe. The environmental and climate crises can be significantly reduced by altering only the conduct of individuals and communities. We may alter our lifestyle and develop enduring environmentally friendly habits, knowledge, skills, attitude, ethics etc. For ensuring such, education can be a great tool. In this regard Environmental Education (EE) and Education for Sustainable Development (ESD) is one defined field of specialization which directly deals with environmental conservation and protection. Also, it is too much important that environmental education should be taught effectively to the students. To impart environmental education, teachers as well as prospective teachers can play a major role in creating environmental consciousness and awareness amongst students. They play a major role in the present scenario for inculcating a positive outlook towards our environment. The present research determines the attitude of the prospective teachers towards the Environment Education i.e., what prospective teachers understand and know about environmental education and to determine whether the different factors like stream, gender, and locale influences the attitude of the prospective teachers towards environmental education. Data was gathered from the sample of 200 prospective teachers studying at different B.Ed. colleges of Jammu district using Attitude Scale towards Environmental education developed and validated by Dr. Anjali Suhane. Analysis was performed using percentage and t-test. Findings revealed that majority of the prospective teachers are aware about the concept of Environmental Education and have a favourable attitude towards environment but still there is a much need and responsibility of all educational institutions to view and promote Environmental Education.

Keywords: Environmental Education, LIFE, NEP 2020, Sustainable Development, Prospective teachers

Introduction

Currently, all nations in the world share a shared concern for environmental conservation and the sustainable development of material resources as a global goal. The Global Sustainable Development Report (GSDR) was created as Member States laid the foundation for the 17 related Sustainable Development Goals (SDGs) and the 2030 Agenda for Sustainable Development in "The Future We Want," the report that came out of the Rio+20 conference on sustainable development. Moreover, as in the present scenario we all know that every nation is striving towards the realization of these Sustainable Development Goals and hence thereby sustainability. As per list, the goal 3 (Good Health and well-being), goal 6 (clean water and sanitation), goal 7 (affordable and clean water), goal 11 (Sustainable cities and communities), goal 13 (climate action) are directly related to the environmental protection and conservation.

Environment as a "place to live" that needs to be understood, planned for, and cared for but on the contrary, global warming and degradation of the environment are global processes, their actions in one region of the world have an effect on ecosystems and populations all over the world. The environmental and climate crises can be significantly reduced by altering only the conduct of individuals and communities. In this context, Prime Minister Narendra Modi introduced the concept of "Lifestyle for the Environment (LIFE)" at COP 26 at Glasgow, Scotland on November 1, 2021. He urged the worldwide community of individuals as well as institutions to lead LIFE to be a global grassroots movement for "mindful and deliberate utilisation, instead of mindless and destructive consumption" in order to safeguard the environment. Everyone has a responsibility under LIFE to live in harmony with the Earth and to cause no harm to it. People who live this way are designated by LIFE as Pro Planet People. But altering our way of life is not easy. Our routines are deeply ingrained, and many aspects of our surroundings constantly reinforce them. It's not always simple to turn our intentions of helping the environment into deeds. We may modify our way of life and create enduring ecologically friendly habits by adopting gradual actions and implementing one modification each day. For such education can be a great tool. Right education enables us to solve the challenges of the modern world and environment and in this regard environmental education can play a key role. Environmental education has a purpose, and that purpose is to create a global population that is aware of environmental issues and equipped with the skills, information, drive, attitude, and dedication to work both independently and collaboratively to solve existing environmental issues and stop the emergence of new ones. In this regard, countries all over the world are realizing the importance of environmental education. The study of the environment is a multidisciplinary process that tries to provide people the information, perspectives, abilities, and drive they need to contribute to the solution of environmental problems. Environmental education, in contrast to traditional education, tries to influence behaviour. Human beliefs and perspectives should change as a result of acquiring knowledge about the environment. The main goal of this type of education is to make people more aware of their entire environment. Its principal responsibility is to provide the necessary education and training to methodically address the many environmental issues and to make it possible for people to live well and in excellent wellness.

In the present era, where more and more children are disconnected from nature, the world countries are recognizing the importance of making a real investment in environmental education. In Stockholm, Sweden, during UN Conference on the Human Environment, Environmental Education attained global prominence. Environmental Education proposed in Recommendation 96 as a way to alleviate the environmental problems that exist all over the world. The suggestion was addressed during the International Environmental Workshop in Belgrade, Yugoslavia, in 1975. According to the Charter, Environmental Education, when properly understood, should be a complete, lifelong education that is responsive to changes in a fast changing global environment. It should provide the student with the knowledge and abilities necessary to contribute positively to the improvement of life and the preservation of the environment while taking ethical principles into consideration, as well as the knowledge of the major issues

facing the modern world. The NPE of 1986 placed a strong emphasis on the inclusion of learning about the environment within the educational system and as a result in the followed policies like NCFSE 2000, NCF 2005, more steps were taken regarding the dissemination of Environmental Education.

Environmental Education and National Education Policy 2020

It has been advocated from the literature pertaining the Environmental Education that the Indian educational system fails to realize the importance for ecological learning. Earlier, ecological problems are unconcern for the educational system in India. This way of thinking is causing India to lag behind in environmental research. In this regard, NEP-2020 too acts as a blueprint for reclaiming, re-articulating, and reorganizing India in order to become a world leader (Vishwa guru) who will celebrate equity, equality, and fraternity. The policy hopes that EE will become an essential component of academic programs. To achieve this, it suggests that all B.Ed. programs incorporate environmental awareness and sensitivity in a way that is acceptable for its protection and sustainable growth. Therefore, it can be concluded that Environmental Education is urgently needed. It is required as a result of the world's growing environmental issues, including pollution, deforestation, climate change, and global warming. As a result, Environmental Education has now been incorporated into every student's curriculum, whether it be formal or informal, with the goal of empowering them to explore and understand their surroundings, develop informed concerns and values, and actively engage in working to address environmental issues and problems and bringing out sustainable development.

Interrelationship between Environmental Education and Sustainable Development

The Environmental Education and the Sustainable Development are closely linked. Through various methods, the interaction between Environmental Education and Sustainable Development produces a multifunctional and comprehensive model, increasing human survival for longer without any degeneration. The goals of Environmental Education, are both directly and indirectly linked to Sustainable Development. We always refer to Environmental Education for Sustainable Development as simply referring to sustainability, while Sustainable Development should include a wide range of diverse topics. To fulfil the goals of Sustainable Development, specific goals should be defined in Environmental Education. Environmental Education is one of the subjective educations that can be provided in all types of education, according to documents introduced by UNESCO at the conference in 1992. The connection between Environmental Education and Sustainable Development is complex. The key to accomplishing Sustainable Development is adequate policy formulation, effective curriculum design, and teacher orientation in teaching Environmental Education. A new curriculum is required to properly teach the concepts and skill-building in environmental education and sustainable development, according to studies by Pande (2002) and Hollweg (2007). Both believe that the current resources are frequently too general in nature and challenging for pupils to relate to or grasp, such as global deforestation. Environmental education is essential because children need to have the chance to learn about and connect with their surroundings. Pupil-teachers

must be knowledgeable about all environmental components so that they can utilize this knowledge to teach students about the environment and instill in them healthy attitudes and values (ethics), particularly those that will cause them to care more about maintaining ecosystem equilibrium. The ability to teach pupils how to protect the environment from further deterioration and contribute to making it a healthier and more modern place to live is another skill that instructors must acquire. Teachers play a major role in creating environmental consciousness and awareness amongst students. Hence, the present study has been taken to assess the attitude of the prospective teachers towards the Environment Education i.e., what prospective teachers understand and know about environmental education and to determine whether the different factors like stream, gender, and locale influences the attitude of the prospective teachers towards environmental education.

Review of related literature

Fatma Sadik (2014) in her study compared Environmental Knowledge and Attitudes of Teacher Candidates. The main aim of this study was to examine the environmental knowledge and attitudes of teacher candidates in the departments of social sciences education and science and technology education. The study's sample included 152 men and 171 women. Internet and television were seen as more effective at promoting environmental awareness by 43% of participants. They stated that the world's biggest concern is the depletion of natural resources, whereas Turkey's biggest problem is urbanization. In 2014, Ghosh performed research on the attitudes of secondary school students in Assam's Golaghat area regarding environmental education. He concluded that, although defines toward environmental education among secondary school students, both male and female, were not significant, attitudes toward environmental education were shown to be significant for rural and urban students. Caroline (2017) ^[7] conducted a study to determine the level of environmental ethics among 300 higher secondary school students in Chennai. The study's findings showed that pupils had an average degree of environmental ethics. She found significant difference with regard to type of family whereas no such difference was found with respect to gender, subject of study and management of school. Deshmukh (2018) examined environmental awareness among post graduate students of Amravati University. The findings showed that arts stream students are more engaged in environmental education than scientific stream students. In 2014, Ghosh performed research on the attitudes of secondary school students in Assam's Golaghat area regarding environmental education. He concluded that, although defines toward environmental education among secondary school students, both male and female, were not significant, attitudes toward environmental education were shown to be significant for rural and urban students' levels of environmental awareness than science stream students. Mkumbachi *et al.* (2020) ^[13] in his work found that there was a causal connection between personal environmental awareness and pro-environmental conduct. People who had high environmental values were usually conscious of the impact their actions have on the environment. This is evidence that a commitment to the environment is a result of environmental awareness. When someone had access to accurate environmental information, they become more conscious of environmental problems that are produced by

people, which inspires them to lead sustainable lives. Their attitude, beliefs, and eventually the expected action will be shaped by their understanding of the surroundings. From the above literature it is concluded that there are so many researchers conducted to assess the attitude towards Environment Education.

Rationale of the present study

Considering that Environmental Education is a process that helps individuals become more aware of their surroundings and enables them to take action both alone and together to address current also, environmental concerns, it becomes very much important to properly integrate the subject environmental education in schools. Along with it, also it is too much important that the subject should be taught effectively to the students. It is a major role of teachers that is demanded on the part of teachers to develop proper knowledge, attitude and skills among the students towards different environmental concerns. He/she should equip the student with the knowledge of the world's most pressing issues as well as the abilities and qualities necessary to contribute positively to the improvement of human existence and the preservation of the environment while taking ethical principles into consideration. A teacher will be able to do so if he/she is having such in himself/herself. There are so many researchers conducted to assess the attitude of teachers towards Environment Education. The review provided a valuable insight regarding the environmental awareness and consciousness towards our natural resources and environment. The review too helped to identify various effective ways and strategies for promoting it. It is evident that maximum of studies has been done either on students or on teachers, but very few are concerning to the prospective teachers. We all know that the prospective teachers are the one who are going to join the teaching profession soon and can play a major role in the present scenario for inculcating a positive outlook towards our environment among the students. Hence, before studying the attitude of students towards environmental education, it becomes prime to know about the attitude of teachers who are going to teach and instil values amongst our students. Hence, the present study had been taken to study the attitude of prospective teachers towards Environmental Education.

Objectives of the study

To study the attitude of prospective teachers towards Environmental Education with respect to gender, locale and stream.

Hypotheses of the study

1. There is no significant difference in the attitude of prospective teachers towards Environmental Education with respect to Gender.
2. There is no significant difference in the attitude of prospective teachers towards Environmental Education with respect to Locale.
3. There is no significant difference in the attitude of prospective teachers towards Environmental Education with respect to Stream.

Research Methodology

Research Design

For the present study, the investigators adopted descriptive-survey method.

Population and Sample of the Study

For the present research prospective teachers studying at different B.Ed. colleges of Jammu district form the population of the study. A simple lottery technique was employed to select 200 prospective teachers from the population.

Tool used

Data was collected using ‘Attitude Scale towards Environmental education developed and validated by Dr. Anjali Suhane (2011)’. A Scale comprised of total 40 items. Each statement was followed by five choices, such as SA, SDA, N, D, and A, which stood for "strongly agree," "agree,"

"neutral," and "disagree." The answer which most accurately matched the respondent's personal opinion required to be selected for each statement. The data collected was analysed by using appropriate statistical techniques.

Analysis and Interpretation

Objective 1

1. To study the attitude of prospective teachers towards Environmental Education

The researcher employed a frequency count and a percentage analysis to investigate how prospective educators responded regarding environmental education.

Table 1: Computation of Percentage in order to study the perception of the future educators for environmental education

S. No.	Classification of perception of the future educators for environmental education	Raw Scores	Number of Prospective Teachers (Out of 200)	Percentage
1	Most Favourable	172 and above	18	9%
2	Favourable	146-171	100	50%
3	Neutral	116-145	82	41%
4	Unfavourable	101-115	-	-
5	Most unfavourable	Below 100	-	-

It is depicted from the above table that the score of halves of the respondents falls in between the range of 146-171 which further reveals that they are having favourable attitude towards Environmental education. Moreover, it is also seen that 41% of the sampled prospective teachers are having

neutral attitude towards Environmental Education with their scores falling in range of 116-145. From the overall sampled prospective teachers, very few (only 9%) falls in the range of 172 and above showing that very few respondents are having most favourable attitude towards Environmental Education.

Furthermore, the results have also been shown with the help of pie-chart

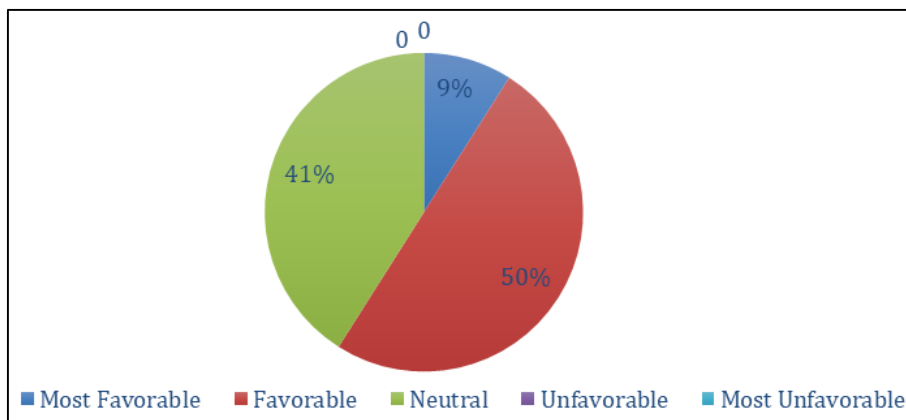


Fig 1: Showing the Attitude of Prospective teachers towards Environmental Education (N=200)

Testing of hypothesis- 1

H_0 : There is no significant difference in the attitude of

prospective teachers towards Environmental Education with respect to Gender.

Table 2: Value of N, Mean, S.D and t-ratio computed for attitude of prospective teachers toward Environmental Education with respect to Gender

S.No	Attitude of prospective teachers toward Environment Education	N	Mean	SD	t-value	Significance
1.	Female	167	151.06	15.145	0.389	Not Significant
2.	Male	33	145.66	10.104		

Interpretation-

It can be interpreted from the above table 2 that the calculated t-value is 0.389 which does not exceed the table value (i.e., 1.96) at 0.05 level of significance. Therefore, the hypothesis stating that there is no significant difference in the attitude of prospectives teachers towards Environmental Education with respect to gender is accepted at the mentioned level of

significance. Hence, it can be concluded that there is no significant difference in the Attitude of prospectives teachers towards Environmental Education with respect to gender which means that the gender does not impact the attitude of prospective teachers towards Environmental Education. The results of the present study are in line with the results of the study conducted by Yousuf and Bhutta (2012) which also

revealed that there was no statistically significant difference between male and female pupils' attitudes toward environmental concerns. Moreover, the findings of the study are in contradiction to the findings of the study conducted by Abraham and Arjuna (2005) ^[2] indicating a gender and location-dependent difference in environmental interest.

Testing of hypothesis- 2

H_0 : There is no significant difference in the attitude of prospective teachers towards Environment Education with respect to Locale.

Table 3: Value of N, Mean, S.D and t-ratio computed for attitude of prospective teachers towards Environmental Education with respect to Locale

S.No	Attitude of Prospectives teacher towards Environment Education	N	Mean	SD	t-value	Significance
1.	Urban	119	150.66	14.35	1.74	Not Significant
2.	Rural	81	149.45	14.89		

From above table, it is depicted that the calculated t-value is 1.74, which does not exceed the table value (i.e., 1.96) at 0.05 level of significance. Therefore, the hypothesis stating that there is no significant difference in the attitude of prospective teachers towards Environmental Education with respect to locale stands accepted at the mentioned level of Significance. Hence, it can be concluded that there is no significant difference in the Attitude of prospective teachers towards Environmental Education with respect to their locale.

The findings of the present study are in contradiction with the findings of the study conducted by Abraham and Arjuna (2005) ^[2] on the Environmental interest of secondary school

pupils in relation to their environmental attitude in Kerala, which revealed that the secondary school pupils interest in the environment was not very strong whereas boys and urban participants were shown to be more interested in environmental issues than their rural counterparts, indicating a gender and location-dependent difference in environmental interest.

Testing of Hypothesis – 3

H_0 : There is no significant difference in the attitude of prospective teachers towards Environmental Education with respect to Stream.

Table 4: Value of N, Mean, S.D and t-ratio computed for attitude of prospective teachers toward Environmental Education with respect to Stream

S.No.	Attitude of prospectives towards Environment Education	N	Mean	SD	t-value	Significance
1.	Arts	131	149.45	15.121	0.99	Not Significant
2.	Science	69	151.55	13.406		

From above table 4, it is depicted that the calculated t- value is 0.99, which does not exceed the table value (i.e., 1.96) at 0.05 level of significance. Therefore, the hypothesis stating that there is no significant difference in the attitude of prospective teachers towards Environmental Education with respect to Stream, is accepted at the mentioned level of Significance. Hence, it can be concluded that there is no significant difference in the Attitude of prospective teachers towards Environmental Education with respect to their Stream which indicates that stream does not impact the attitude of prospective teachers towards Environmental Education. These findings are in line with the findings of the study conducted by Kalpana Thakur (2012) which also revealed that male science students demonstrated very high degree of environment awareness than female science students but overall, no significant difference was found between male and female students.

Results of the study

The conclusions drawn are

- About 50% of the prospective teachers is having favourable attitude towards Environmental education.
- It is also seen that 41% of the sampled prospective teachers are having neutral attitude towards Environmental Education.
- Only 9% i.e., very few respondents are having most favourable attitude towards Environmental Education
- There is no significant difference in the attitude of prospective teachers towards Environment Education

with respect to Gender.

- There is no significant difference in the attitude of prospective teachers toward Environment Education with respect to Stream.
- There is no significant difference in the attitude of prospective teachers towards Environment Education with respect to locale.

Recommendations

On the basis of above findings, following recommendations are given:

- No doubt, majority of the prospective teachers are aware about the concept of Environment Education and develop an understanding of their surroundings and the impact they have on the environment and the interrelationships between humans and the environment. But, still there is a much need and responsibility of all educational institutions to view and promote Environmental Education.
- Also, more emphasis on environmental education should be given to encourage individuals to think critically about environmental problems and their causes so that they can make informed decisions and take actions to reduce their impact on the environment.
- Curriculum for schools should be framed in a such way that it also focuses on enhancing interdisciplinary learning environment. There should be a collaboration of range of disciplines, including science, social studies, and geography, to encourages interdisciplinary learning.

This helps individuals to develop a holistic understanding of environmental issues and their solutions.

- Along with the theoretical integration, there is a much need of laying focus on practical aspects to develop positive outlook among prospective teachers and this can be done by raising awareness through various activities in educational institutions.
- Overall, environment education has important implications for both personal and societal development, and it is crucial for individuals to understand and take action to protect the environment for the benefit of future generations.
- Moreover, it is only through Environment Education that we can teach youth about sustainable practices such as recycling, reducing waste, and conserving energy. These practices can help reduce environmental degradation and promote sustainable development and hence achieving SDGs.
- Environment Education also prepare youth for careers in environmental fields such as conservation, natural resource management, and environmental advocacy. These careers can contribute to the nation's economy.
- Prospective teachers should view environmental education as a critical component of their teaching practice, as this will help to create a more sustainable future for their students and the planet.

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