

ENVIRONMENTAL AWARENESS OF STUDENT TEACHERS

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Abstract

Environmental awareness is an essential component of teacher education for promoting sustainable development and responsible environmental behaviour. The researcher initiated this study to examine the level of environmental awareness among student teachers. The findings indicate that 15% of the student teachers have low environmental awareness, 60% of the student teachers have average environmental awareness, and 25% of the student teachers have high environmental awareness. Overall, the results show that student teachers possess an average level of environmental awareness. Male and female student teachers differ significantly in environmental awareness based on gender. Female student teachers showed better environmental awareness than male student teachers. Rural and urban student teachers do not differ significantly in environmental awareness based on locality. Government and private student teachers do not differ significantly in environmental awareness based on their management. Arts and science student teachers differ significantly in environmental awareness based on their subject. Science student teachers demonstrated better environmental awareness than arts student teachers.

Keywords: *Environmental Awareness, Student Teachers, Environmental Protection.*



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Introduction

Environmental awareness has become one of the most important issues of the 21st century. The challenges that affect the entire world are climate change, loss of biodiversity, pollution, and depletion of natural resources. These global challenges show that human survival and progress depend on the conservation of the natural environment. Education plays a crucial role in developing environmentally responsible individuals who understand how their actions impact the planet. Therefore, it is important to educate the masses to think critically about environmental issues. Student teachers occupy a unique and influential place in the system of education. As future educators, they have the duty to guide young learners and shape their attitudes, values, and behavior about the environment. When student teachers

grasp environmental issues, they can effectively include ecological principles in their classroom teaching and encourage students to adopt sustainable practices. Thus, their awareness extends beyond individual knowledge to shape future generations and ensure lasting environmental responsibility.

Environmental awareness includes understanding environmental issues, recognizing the link between humans and nature, adopting eco-friendly attitudes, and encouraging pro-environmental behavior. For student teachers, being aware also means integrating environmental concepts into their teaching methods, activities, and daily actions. An environmentally conscious teacher is not just knowledgeable but also shows responsible behavior, such as conserving water, reducing waste, saving energy, and respecting living beings. In many countries, including India, teacher training institutions are starting to acknowledge the significance of integrating environmental literacy into teacher education. In this connection, teacher education institutions should foster not only academic skills but also social and environmental responsibility in future educators. However, it is not enough to introduce environmental subjects to the curriculum. Nevertheless, environmental education often focuses too much on theory, with too little attention to hands-on involvement and real-world environmental challenges. Therefore, it is essential for student teachers to be actively involved in practical activities that include hands-on experiences, nature-based learning, community engagement, and reflective practices. This makes the environmental awareness individually relevant and behavior-change oriented. The level of environmental awareness among student teachers can vary based on factors like socio-economic status, exposure to environmental education, geographic context, availability of resources, and support from institutions.

Research in teacher education shows that while many student teachers understand environmental issues theoretically, they often struggle with practical application, critical thinking, and long-term commitment to eco-friendly practices. Therefore, it is important to continuously assess and boost their environmental awareness to develop well-prepared teachers who can contribute to environmental protection and sustainability. Moving toward a sustainable society requires empowered and environmentally aware educators at the center of the education system. Promoting environmental awareness among student teachers ensures that the values of environmental protection, conservation, and sustainable development are passed on to future generations. When these future teachers adopt the ecological values and put them in their personal and professional lives, the advantage of the same can alter the

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school systems, families, and societies. Hence, assessing and strengthening the environmental awareness of student teachers holds great significance, as teachers play a vital role in shaping environmentally responsible citizens. In this context, the study titled “*Environmental Awareness of Student Teachers*” assumes considerable importance.

Statement of the Problem

The present research work, entitled “*Environmental Awareness of Student Teachers*,” aims to examine the level of environmental awareness among student teachers.

Operational Definitions of Key Terms

Environmental Awareness

Environmental awareness refers to student teachers’ knowledge, understanding, and concern regarding environmental issues and the importance of environmental protection, as measured by the Environmental Awareness Ability Measure Scale developed by Dr. Praveen Kumar Jha (1998).

Student Teachers

Student teachers are individuals pursuing the Bachelor of Education (B.Ed.) degree course in teacher education colleges during the academic year 2016–2017.

Review of related Literature

Sammaiah (2011) examined environmental awareness among 300 higher primary school teachers in Warangal City. The majority of teachers exhibited moderate awareness, while female teachers, and private-school teachers showed higher awareness levels. The findings highlight the need to enhance teachers’ environmental awareness.

Arun Kumar (2012) investigated the environmental awareness of teacher trainees in Tiruchirapalli District, Tamil Nadu, using a survey method. The findings showed that the trainees demonstrated a moderate level of environmental awareness. No significant differences were observed with regard to gender or locality. The study also stressed the importance of strengthening environmental education components within teacher training programmes.

Uday Singh (2013) conducted a study comparing environmental awareness among primary teachers and trainee teacher educators in Gorakhpur City in Uttar Pradesh. The findings showed that trainee teacher educators had higher levels of environmental awareness than primary teachers. This suggests that teacher education programs might improve awareness levels.

Singh et al. (2014) compared the environmental awareness of 1,000 secondary school

teachers in Bareilly District, Uttar Pradesh. The findings revealed that female teachers had higher environmental awareness than male teachers. Teachers from CBSE-affiliated schools demonstrated greater environmental awareness than those from U.P. Board schools. Subject-wise comparisons further indicated that Science and Arts teachers had higher environmental awareness than Commerce teachers.

Gunde and Parit (2015) carried out a study to investigate the influence of gender and faculty on the environmental awareness of college students. The sample consisted of 300 first-year students from the Gadhinglaj region of Kolhapur District, with 100 students representing each of the Arts, Commerce, and Science faculties. The results indicated notable differences in environmental awareness with reference to both gender and faculty. However, no significant interaction effect was found between gender and faculty regarding the environmental awareness of the college students.

Patial (2016) examined environmental awareness among secondary school teachers in relation to gender, type of school board, and subject specialization. The study included 1,000 teachers from secondary schools in Chamba District, Himachal Pradesh, affiliated with CBSE and the H.P. Board. The findings revealed that female teachers displayed higher environmental awareness than male teachers. Science and arts teachers had higher environmental awareness than commerce teachers. CBSE teachers demonstrated greater awareness compared to H.P. Board teachers.

Objectives of the Study

- To study the levels of environmental awareness among student teachers.
- To compare the environmental awareness of male and female student teachers.
- To compare the environmental awareness of rural and urban student teachers.
- To compare the environmental awareness of government and private student teachers.
- To compare the environmental awareness of arts and science student teachers.

Hypotheses of the Study

- Student teachers do not differ in their levels of environmental awareness.
- Male and female student teachers do not differ significantly in their environmental awareness.
- Rural and urban student teachers do not differ significantly in their environmental awareness.
- Government and private student teachers do not differ significantly in their environmental awareness.
- Arts and science student teachers do not differ significantly in their environmental awareness.

Methodology of the Study

The researcher employed a normative survey method, and the sample was selected using a stratified random sampling technique. The study was conducted on a sample of 120 student teachers enrolled in the B.Ed. programme in selected teacher education colleges in Guntur City, located in the Guntur District of Andhra Pradesh. The Environmental Awareness Ability Measure Scale, standardized by Dr. Praveen Kumar Jha, was used for data collection. The scale consists of 51 items, including 41 positive statements and 8 negative statements, with response options of agree or disagree. It has a reliability coefficient of 0.84 and a validity coefficient of 0.83.

Statistical Techniques Used

The data and responses gathered from the student teachers were scored, organized, and statistically analyzed using percentage, mean, standard deviation, and the "t" test.

Analysis and Interpretation of the Data

Table -1: Level of Environmental Awareness of Student Teacher

Sl. No	Range of Scores	N	%	Classification
1	0-15	18	15	Low Environmental Awareness
2	16-36	72	60	Average Environmental Awareness
3	37-51	30	25	High Environmental Awareness
Total		120	100	

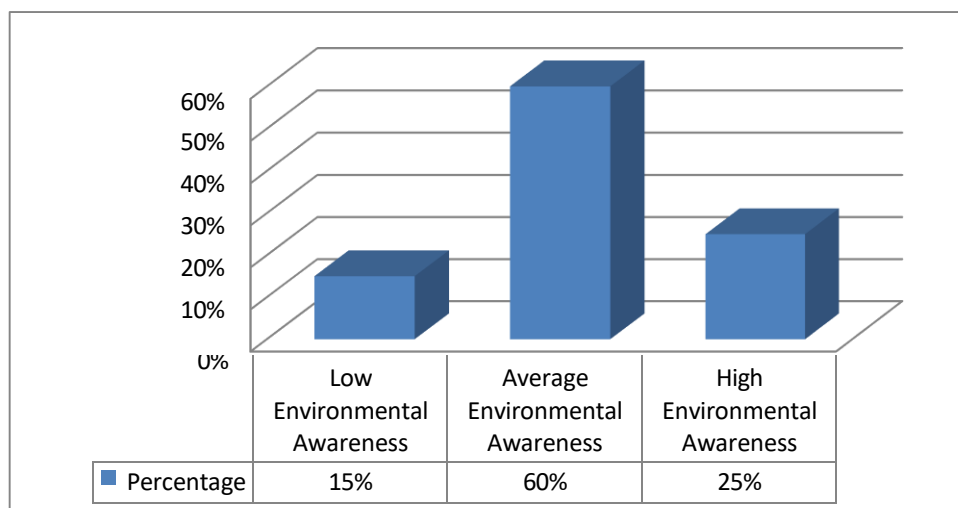


Table-1 shows that 15% of the student teachers have low environmental awareness, 60% have average environmental awareness, and 25% have high environmental awareness. Thus, student teachers differ in their levels of environmental awareness.

Table-2**Comparison of Environmental Awareness of Male and Female Student Teachers**

Gender	N	Mean	SD	SED	df	t-value
Male	60	30.12	6.97	1.41	118	3.35**
Female	60	34.86	8.42			

**Significant at 0.01 level

Table -2 shows that the calculated t-value (3.35) is greater than the critical value (2.58) at the 0.01 level of significance. Therefore, the null hypothesis is rejected. This indicates that male and female student teachers differ significantly in their environmental awareness based on gender, although both groups possess an average level of environmental awareness. The environmental awareness of female student teachers is higher than that of male student teachers.

Table -3**Comparison of Environmental Awareness of Rural and Urban Student Teachers**

Locality	N	Mean	SD	SED	df	t-value
Rural	60	33.28	6.36	1.24	118	0.50#
Urban	60	32.65	7.20			

Not Significant at 0 .05 level

Table -3 shows that the calculated t-value (0.50) is less than the critical value (1.96) at the 0.05 level of significance. Therefore, the null hypothesis is accepted. This indicates that rural and urban student teachers do not differ significantly in their environmental awareness based on locality, although both groups possess an average level of environmental awareness.

Table -4**Comparison of Environmental Awareness of Government and Private Student Teachers**

Management	N	Mean	SD	SED	df	t-value
Govt.	60	34.93	6.98	1.34	118	0.95#
Private	60	33.64	7.76			

Not Significant at 0.05 level

Table -4 shows that the calculated t-value (0.95) is less than the critical value (1.96) at the 0.05 level of significance. Therefore, the null hypothesis is accepted. This indicates that government and private student teachers do not differ significantly in their environmental awareness based on the type of management, although both groups possess an average level of environmental awareness.

Table -5**Comparison of Environmental Awareness of Arts and Science Student Teachers**

Subject	N	Mean	SD	SED	df	t-value
Arts	60	30.27	6.39	1.38	118	3.10**
Science	60	34.58	8.65			

**Significant at 0.01 level

Table -5 shows that the calculated t-value (3.10) is greater than the critical value (2.58) at the 0.01 level of significance. Therefore, the null hypothesis is rejected. This indicates that arts and science student teachers differ significantly in their environmental awareness based on their subject stream, although both groups possess an average level of environmental awareness. The environmental awareness of science student teachers is higher than that of arts student teachers.

Limitations of the Study

- The study was limited to 120 student teachers admitted to the B.Ed. programme.
- The sample was drawn only from selected teacher education colleges in Guntur City, Andhra Pradesh.
- The study considered only a few variables such as gender, locality, management, and subject.
- The findings of the study are limited to the sample selected and may not be generalized to all student teachers.

Findings of the Study

- The results reveal that 15% of the student teachers have low environmental awareness, 60% have average environmental awareness, and 25% have high environmental awareness. This indicates that student teachers differ in their levels of environmental awareness.
- Male and female student teachers differ significantly in environmental awareness based on their gender. Female student teachers had better environmental awareness than male student teachers.
- Rural and urban student teachers do not differ significantly in environmental awareness based on locality.

- Government and private student teachers do not differ significantly in environmental awareness based on their management.
- Arts and science student teachers differ significantly in environmental awareness based on their subject. Science student teachers had better environmental awareness than arts student teachers.

Educational Implications

Fostering Environmental Awareness and Understanding

The differences in environmental awareness among student teachers highlight the need to strengthen environmental education through workshops, seminars, and awareness programmes that encourage responsible attitudes towards the environment.

Promoting Gender Equality in Environmental Activities

Gender differences in environmental awareness emphasise the importance of providing equal opportunities for all student teachers to participate in environmental projects, fieldwork, and conservation activities.

Institutional Support for Environmental Awareness

The similar levels of environmental awareness among government and private student teachers highlight the importance of maintaining effective environmental education across both types of institutions through practical activities and awareness programmes.

Advancing Environmental Awareness through Curriculum Integration

The differences between Science and Arts student teachers highlight the need to integrate environmental concepts across disciplines, helping them understand environmental issues from scientific, social, and cultural perspectives.

Strengthening Experiential Environmental Learning

Practical activities such as nature visits, local environmental studies, and conservation projects can connect theoretical knowledge with real-world challenges and develop problem-solving skills. These experiences can also encourage critical thinking and informed decision-making about environmental protection.

Applying Environmental Awareness in Educational Practice

Teacher education institutions should promote sustainable practices such as waste management, energy conservation, and tree planting. These activities can help student teachers develop responsible habits and incorporate environmental awareness into classroom teaching. Participation in local environmental initiatives can encourage school students to take an active role in environmental protection.

Conclusion

The findings of the study revealed that, while student teachers possess a moderate level of awareness of environmental issues, there are noticeable gaps in their practical understanding and active participation in environmental activities. The results underscore the need to strengthen environmental components in teacher education curricula and to promote experiential learning approaches. Based on the findings, the study recommends curriculum revision, increased practical exposure, strengthened pedagogical strategies, and the implementation of green campus initiatives. The study holds significant implications for educational institutions, policymakers, and curriculum developers. By improving environmental awareness among student teachers, teacher education programmes can contribute to nurturing responsible future educators who will promote environmental stewardship and sustainable practices in schools and communities.

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