



ENVIRONMENTAL AWARENESS AND ENVIRONMENTAL ETHICS AMONG SECONDARY SCHOOL STUDENTS: A COMPARATIVE STUDY

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Abstract: Environmental degradation has emerged as one of the most pressing global concerns of the twenty-first century. The development of environmental awareness and environmental ethics among students is essential for fostering responsible environmental behavior and sustainable development. The present study aimed to investigate the levels of environmental awareness and environmental ethics among secondary school students and examine the relationship between these variables. A sample of 200 secondary school students from Bangalore city was selected through stratified random sampling. The study employed the Environmental Awareness Scale (TEAS) developed by Dr. M. S. Talawar (2018) and the Environmental Ethics Scale (EES) developed by Dr. Haseen Taj (2001). Descriptive statistics, independent sample t-test, and Pearson's Product-Moment Correlation were used for data analysis. The findings revealed significant differences in environmental awareness and environmental ethics between male and female students. Female students demonstrated higher levels of environmental awareness and environmental ethics compared to male students. A significant positive correlation was found between environmental awareness and environmental ethics, indicating that students with higher environmental awareness tend to possess stronger environmental ethics. The study highlights the need to integrate environmental education and ethical values into the school curriculum to promote environmentally responsible behaviour among students.

Index Terms - Environmental Awareness, Ethics, Environmental Education, Sustainable Development

I. INTRODUCTION

Environmental problems such as climate change, pollution, deforestation, biodiversity loss, and depletion of natural resources have become major concerns worldwide. Education plays a significant role in creating awareness about environmental issues and developing ethical attitudes toward environmental conservation.

Environmental awareness refers to the understanding and knowledge individuals possess regarding environmental issues, their causes, consequences, and possible solutions. Environmental ethics, on the other hand, concerns moral principles and values guiding human interactions with nature and the environment. Schools are important institutions for cultivating environmentally responsible citizens. Secondary school students are at a crucial stage of cognitive and moral development, making it essential to assess their environmental awareness and environmental ethics.

The present study seeks to compare environmental awareness and environmental ethics among secondary school students in Bangalore and determine the relationship between these variables.

II. REVIEW OF RELATED LITERATURE

Several studies have highlighted the importance of environmental education in promoting awareness and ethical responsibility among students.

Shobeiri et al. (2007) reported that environmental awareness positively influences students' environmental attitudes and behaviour.

Palmer (2015) emphasised that environmental education develops responsible environmental citizenship and sustainable living practices.

Talawar (2018) found that students exposed to environmental education programs exhibited higher environmental awareness scores than those without such exposure.

Haseen Taj (2001) developed the Environmental Ethics Scale and demonstrated that ethical values significantly influence pro-environmental behaviour.

Recent studies indicate that female students generally demonstrate higher environmental concern and ethical sensitivity toward environmental issues compared to male students.

The reviewed literature suggests a strong connection between environmental awareness and environmental ethics, warranting further investigation among secondary school students.

OBJECTIVES OF THE STUDY

- To assess the level of environmental awareness among secondary school students.
- To assess the level of environmental ethics among secondary school students.
- To compare environmental awareness between male and female students.
- To compare environmental ethics between male and female students.
- To determine the relationship between environmental awareness and environmental ethics among secondary school students.

HYPOTHESES

H01: There is no significant difference in environmental awareness between male and female secondary school students.

H02: There is no significant difference in environmental ethics between male and female secondary school students.

H03: There is no significant relationship between environmental awareness and environmental ethics among secondary school students.

III. METHODOLOGY

Research Design: The study adopted the descriptive survey method.

Population: The population consisted of all secondary school students studying in government and private schools in Bangalore City. A total of 200 students were selected through stratified random sampling.

RESEARCH TOOLS

1. The Environmental Awareness Scale (TEAS) developed by Dr. M. S. Talawar (2018), with a reliability coefficient of 0.87, is a valid and reliable tool used to assess students' awareness of environmental pollution, biodiversity, resource conservation, climate change, and sustainable development.

2. **Environmental Ethics Scale (EES)** developed by Dr. Haseen Taj (2001), with a **reliability coefficient of 0.69**, is a standardised tool used to measure students' respect for nature, conservation values, environmental responsibility, and ethical decision-making related to environmental issues.

Statistical Techniques Used

- Mean
- Standard Deviation
- Independent Sample t-test
- Pearson Product-Moment Correlation

IV. Results and Discussion

- *Environmental Awareness among Secondary School Students*

Table 2
Descriptive Statistics of Environmental Awareness

Group	N	Mean	SD
Male	100	71.24	8.62
Female	100	76.85	7.94

The mean environmental awareness score of female students (76.85) was higher than that of male students (71.24).

- *Comparison of Environmental Awareness*

Table 3
t-test for Environmental Awareness

Group	Mean	SD	t-value
Male	71.24	8.62	4.79*
Female	76.85	7.94	

Critical t-value at 0.05 level = 1.97

Significant at the 0.05 level, the obtained t-value (4.79) is greater than the critical value (1.97). Therefore, the null hypothesis is rejected. Female students possess significantly higher environmental awareness than male students.

- *Environmental Ethics among Secondary School Students*

Table 4
Descriptive Statistics of Environmental Ethics

Group	N	Mean	SD
Male	100	74.15	7.88
Female	100	79.41	7.12

Female students obtained higher mean scores on environmental ethics.

- *Comparison of Environmental Ethics*

Table 5
t-test for Environmental Ethics

Group	Mean	SD	t-value
Male	74.15	7.88	4.97*
Female	79.41	7.12	

Critical t-value at 0.05 level = 1.97

Significant at 0.05 level, the obtained t-value (4.97) exceeds the critical value. Hence, the null hypothesis is rejected. Female students demonstrate significantly higher environmental ethics compared to male students.

➤ Relationship between Environmental Awareness and Environmental Ethics

Table 6

Correlation between Environmental Awareness and Environmental Ethics

Variable	N	r-value
Environmental Awareness & Environmental Ethics	200	0.68*

Critical r-value at 0.05 level = 0.138

Significant at the 0.05 level, the obtained correlation coefficient ($r = 0.68$) indicates a strong positive relationship between environmental awareness and environmental ethics. Therefore, the null hypothesis is rejected. Students with higher environmental awareness tend to exhibit stronger environmental ethics.

DISCUSSION

The findings indicate that female students possess significantly higher environmental awareness and environmental ethics than male students. This may be attributed to greater sensitivity toward environmental and social issues among female students.

The positive correlation between environmental awareness and environmental ethics suggests that greater knowledge and understanding of environmental issues foster ethical attitudes toward environmental protection.

These findings are consistent with previous studies conducted by Talawar (2018), Palmer (2015), and Shobeiri et al. (2007), which reported a positive association between environmental knowledge and environmentally responsible behaviour.

V. EDUCATIONAL IMPLICATIONS

- Environmental education should be integrated across all school subjects.
- Schools should organize environmental awareness campaigns and eco-club activities.
- Teachers should emphasize environmental ethics through value-based education.
- Field visits, nature camps, and community projects should be encouraged.
- Environmental conservation activities should be included in school evaluation systems.
- Policy makers should strengthen environmental education programs in schools.

VI. CONCLUSION

The study concludes that secondary school students in Bangalore possess moderate to high levels of environmental awareness and environmental ethics. Female students demonstrate significantly higher levels of both variables compared to male students. Furthermore, a strong positive relationship exists between environmental awareness and environmental ethics. The findings highlight the importance of environmental education in fostering ethical responsibility and sustainable behavior among students. Schools must play a proactive role in developing environmentally conscious and ethically responsible citizens.

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