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Environmental Attitude among Secondary School Students

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Abstract
The growing environmental challenges, such as climate change, pollution, and resource depletion, necessitate a deeper understanding of environmental attitudes among students. This study aims to assess the environmental attitude of secondary school students based on gender, type of school management, medium of instruction, and locality. A descriptive survey method was employed, and data was collected using the Environmental Attitude Scale (EAS) developed by Dr. Haseen Taj (2001). A total of 240 students from various schools in Bengaluru district were selected through a simple random sampling technique. The results indicate significant differences in environmental attitudes based on gender, with boys exhibiting higher environmental attitudes than girls. School management type also played a role, as government school students demonstrated stronger environmental attitudes compared to private aided students. Additionally, English-medium students displayed more positive environmental attitudes than Kannada-medium students. However, no significant difference was found between urban and rural students. The study highlights the need for comprehensive environmental education programs tailored to different demographic groups to foster a positive attitude towards environmental conservation. The findings suggest that educational interventions should focus on integrating experiential learning, community participation, and inclusive policies to enhance students' engagement with environmental sustainability.
Key Words: Environmental Attitude, Environmental Education, Gender Differences Medium of Instruction, Locality , School Management, Secondary School Students.

1.INTRODUCTION

The environment plays a crucial role in sustaining life on Earth, and its conservation is essential for the well-being of present and future generations. The increasing environmental challenges such as climate change, deforestation, pollution, and biodiversity loss have heightened the need for environmental consciousness among individuals, especially students. Environmental attitudes encompass an individual's beliefs, values, and behavioural inclinations toward environmental issues and conservation efforts (Sreedevi Reddy & Lokanadha Reddy, 2022). Understanding environmental attitudes is fundamental to promoting sustainable behaviours and fostering a sense of responsibility among students.

Environmental attitude refers to an individual's overall perception, emotions, and behaviours toward environmental conservation. It consists of cognitive (knowledge and beliefs), affective (emotions and feelings), and behavioural (actions and intentions) components (Chavada, 2021). These dimensions collectively influence how individuals interact with and respond to environmental concerns. Previous studies have shown that a strong environmental attitude is linked to proactive engagement in eco-friendly behaviours such as recycling, energy conservation, and participation in environmental initiatives (Prajapati, 2011).

Several factors contribute to shaping an individual's environmental attitude, including social, cultural, educational, and economic influences (Bashir et al., 2022). Educational institutions play a pivotal role in instilling environmental awareness among students by incorporating environmental education into the curriculum. Additionally, exposure to media, personal experiences, and community engagement

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further influence environmental attitudes (Thirumoorthy, 2018). Studies suggest that students who receive formal education on environmental issues tend to develop a more positive attitude toward sustainability (Marry Susheela, 2021).

2. NEED AND IMPORTANCE OF THE STUDY

The increasing environmental challenges such as climate change, deforestation, pollution, and biodiversity loss necessitate the urgent need for cultivating positive environmental attitudes among students. Environmental attitudes encompass an individual's beliefs, values, and behavioural inclinations toward environmental issues and conservation efforts (Sreedevi Reddy & Lokanadha Reddy, 2022). Developing strong environmental attitudes is fundamental to promoting sustainable behaviours and fostering a sense of responsibility among students. Gender differences in environmental attitudes have been a subject of debate. Some studies suggest that female students exhibit stronger pro-environmental attitudes (Bashir et al., 2022), while others indicate minimal impact of gender (Chavada, 2021). Understanding these differences can help tailor educational programs to address gender-specific needs. The type of school management also influences how students develop environmental awareness. Private schools often have structured programs that enhance environmental knowledge, while government schools may provide awareness through direct exposure to environmental issues (Yeshwant, 2015; Parveen, 2019).The medium of instruction shapes students' access to environmental knowledge. English-medium students benefit from global perspectives, whereas regional language students gain localized insights (Lalhmangaihzuali, 2022; Susheela, 2021). Locality also plays a role in shaping environmental attitudes. Students from rural areas often have a deeper connection with nature, whereas urban students focus more on pollution and waste management (Busi, 2021). Consequently, the researchers felt the immense importance of conducting this study to examine how various demographic factors, such as gender, type of school management, medium of instruction, and locality, influence students' environmental attitudes. This understanding can help design targeted interventions that promote environmental ethics and responsibility among secondary school students.

3.OBJECTIVES OF THE STUDY

- To assess the environmental attitude of secondary school students.
- To examine the differences in environmental attitude based on gender, type of school management, medium of instruction and locality.

4. HYPOTHESES OF THE STUDY

- There is no significant difference in the environmental attitude of boys and girls.
- There is no significant difference in the environmental attitude of students studying in government, private aided, and private unaided schools.
- There is no significant difference in the environmental attitude of students studying in Kannada and English medium schools.
- There is no significant difference in the environmental attitude of students from urban and rural localities.

5. METHODOLOGY

Research Design The present study adopts a descriptive survey method to investigate the environmental attitude of secondary school students. This method is appropriate for assessing students' environmental attitudes based on demographic variables such as gender, type of school management, medium of instruction, and locality.

5.1 Variables of the Study

- Dependent Variable: Environmental Attitude
- Moderate Variables:

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- Sex (Boys and Girls)
- Type of School Management (Government, Private Aided, Private Unaided)
- Medium of Instruction (Kannada and English)
- Locality (Urban and Rural)

5.2 Sampling Procedure The study population consists of secondary school students from Bengaluru District. A total of 240 students were selected using a simple random sampling technique to ensure fair representation from different types of schools and demographic groups.

5.3 Research Tool: The Environmental Attitude Scale (EAS) developed by Dr. Haseen Taj (2001) was used to measure students' environmental attitudes.

5.4 Data Collection Procedure: The researcher personally visited the selected schools and administered the Environmental Attitude Scale under normal classroom conditions. Students were assured of confidentiality and encouraged to respond freely. Prior permission was obtained from school authorities before conducting the survey.

5.5 Statistical Techniques Used: The collected data was analyzed using both descriptive and inferential statistical techniques:

1. Descriptive Statistics:
- Mean
- Standard Deviation

2. Inferential Statistics:
- Independent t-test

6. DATA ANALYSIS AND INTERPRETATION

Hypothesis-1

There is no significant difference in the Environmental attitude of boys and girls secondary school students.

Table1: Number, Mean, Standard Deviation, 't' value and Significance Level related to Environmental attitude scores of boys and girls secondary school students.

*Significant at 0.05 level (t=1.97)

The obtained t-value (2.220) is greater than the critical value at a significance level of 0.05, indicating a significant difference in environmental attitude between boys and girls. Boys have a higher mean score (165.93) than girls (162.66), suggesting that boys exhibit a more positive environmental attitude.

Groups	No.	Mean Scores	Standard Deviation	't' Value	Sig.
Boys	120	165.93	11.572	2.220	*
Girls	120	162.66	11.278		

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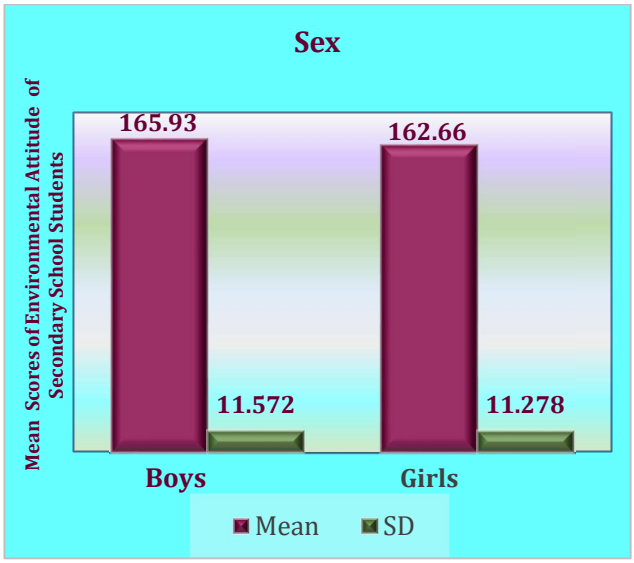

Fig 1: Comparison of Environmental attitude mean scores of secondary school Boys and Girls

Hypothesis--2

There is no significant difference in the Environmental attitude of secondary school students studying in government, private aided and private unaided schools.

Table-2 Number, Mean, Standard Deviation, 't' Value and Significance Level related to Environmental attitude scores of secondary school students studying in government. private aided and private unaided schools.

Groups	No	Mean Scores	Standard Deviation	't' Value	Sig. Level
Government	80	166.16	11.285	2.821	**
Private Aided	80	161.41	9.969		
Government	80	166.16	11.285	0.447	NS
Private Unaided	80	165.31	12.718		
Private Aided	80	161.41	9.969	2.159	*
Private Unaided	80	165.31	12.718		

**Significant at 0.01 level (2.61),* Significant at 0.05 level(1.97),NS-Not significant

The results indicate that there is a significant difference in the environmental attitude of students studying in government and private aided schools, as the obtained t-value (2.821) is greater than the table value at a 0.01 level of significance. Government school students (M=166.16) exhibit a more positive environmental attitude compared to private aided students (M=161.41). However, no significant difference is observed between government and private unaided school students (t=0.447, NS), suggesting that their environmental attitudes are similar. Similarly, a significant difference is noted between private aided and private unaided school students (t=2.159, significant at 0.05 level), with private unaided students (M=165.31) showing a more favourable environmental attitude than private aided students. This indicates that school management type influences students' environmental

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attitudes, with government and private unaided schools fostering higher environmental awareness than private aided institutions.

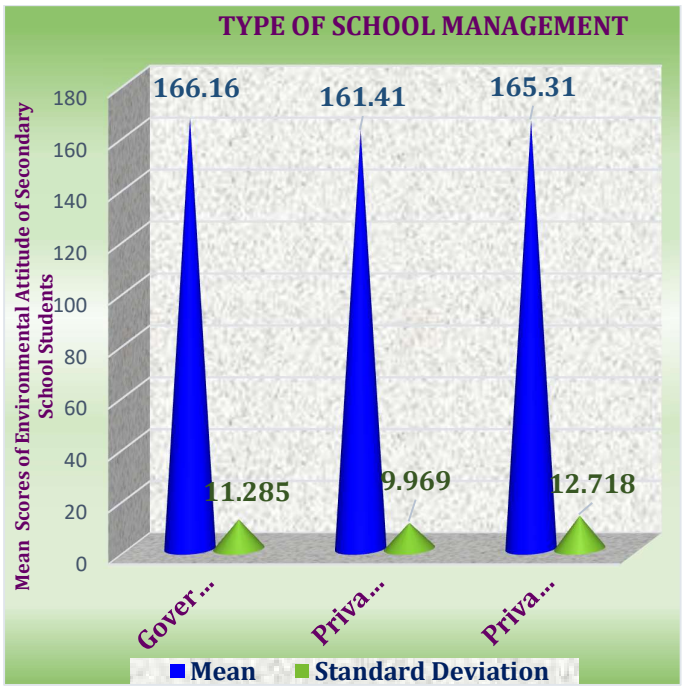

Fig 2: Comparison of Environmental attitude mean scores of secondary school studying in Government, Private aided and Private unaided Schools

Hypothesis--3

There is no significant difference in the Environmental attitude of secondary school students studying in Kannada and English Medium.

Table-3: Number, Mean, Standard Deviation, 't' Value and Significance Level related to Environmental attitude scores of secondary school students studying in Kannada and English secondary schools.

Groups	No	Mean Scores	Standard Deviation	't' Value	Sig. Level
Kannada	110	161.85	11.776	3.085	**
English	130	166.37	10.920		

** Significant at 0.01 level (t=2.61)

The t-test result (3.085) is significant at the 0.01 level, showing that students studying in English medium schools (M=166.37) have a more positive environmental attitude than Kannada medium students (M=161.85).

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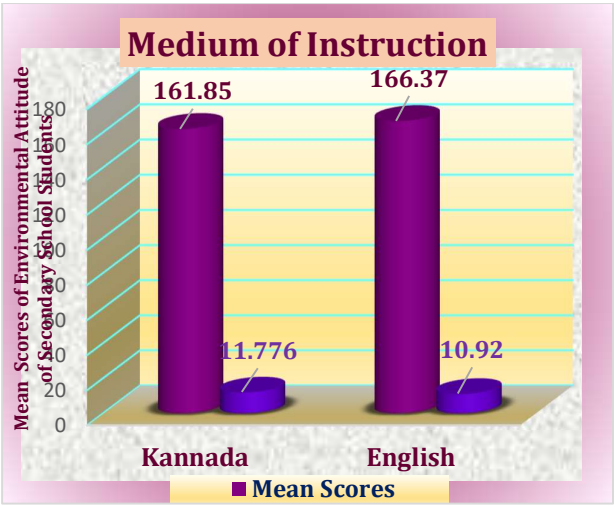

Fig.3 Comparison of Environmental attitude mean scores of secondary school students studying in Kannada and English schools

Hypothesis-4

There is no significant difference in the Environmental attitude of secondary school students belonging to rural and urban locality.

Table-4: Number, Mean, Standard Deviation, 't' Value and Significance Level related to Environmental attitude scores of secondary school students from rural and urban locality.

Groups	Number	Mean Scores	Standard Deviation	't' Value	Sig. Level
Rural	130	165.59	11.790	1.906	NS
Urban	110	162,76	11,049		

NS Not Significant

The obtained t-value (1.906) is not significant at 0.05 level, indicating no significant difference in the environmental attitude of students based on locality. Both rural (M=165.59) and urban (M=162.76) students show comparable levels of environmental attitude.

7. DISCUSSION

The findings of this study provide valuable insights into the environmental attitudes of secondary school students based on different demographic factors. The results indicate that boys have a significantly higher environmental attitude than girls. This is consistent with previous studies that have reported gender-based variations in environmental attitudes (Bashir et al., 2022). However, other studies have found conflicting results, suggesting that gender may not always play a decisive role in shaping environmental attitudes (Chavada, 2021). The observed difference could be attributed to variations in exposure to environmental education, cultural influences, or personal experiences. One possible explanation for this result is that boys may have more opportunities for outdoor activities and engagement with nature through extracurricular programs, science-related projects, and environmental clubs, which could strengthen their environmental attitudes (Prajapati, 2011). Additionally, societal expectations and traditional gender roles might influence how boys and girls perceive environmental responsibility, with boys often being encouraged to participate in activities that promote environmental awareness and action (Bashir et al., 2022).

Regarding school management type, the study found that government school students exhibited a more positive environmental attitude than private aided school students, while private unaided students showed a better attitude than private aided students. This finding aligns with research

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conducted by Reddy and Reddy (2022), who found that students in government schools often develop stronger environmental attitudes due to direct exposure to real-world environmental issues and limited resources. Private aided school students, on the other hand, may have less structured environmental education programs compared to private unaided schools, where students may have greater access to extracurricular environmental activities.

The results also indicate a significant difference in the environmental attitudes of Kannada and English medium students, with English medium students demonstrating a more favorable environmental attitude. This supports previous findings by Lalhmangaihzuali (2022), which suggested that English medium students have greater access to global environmental discussions and are more likely to engage in sustainability efforts. Conversely, Kannada medium students may be more influenced by local environmental concerns and traditional ecological knowledge.

Finally, the study found no significant difference in environmental attitudes between rural and urban students. This contradicts earlier research that suggested rural students might have a stronger environmental connection due to their proximity to nature (Busi, 2021). However, the result aligns with the findings of Sowmya and Kumar (2023), who reported that environmental attitudes are increasingly shaped by formal education rather than geographical location.

These findings highlight the importance of strengthening environmental education programs across all school types and mediums of instruction. The study underscores the need for inclusive environmental policies that address both urban and rural students equally. Future research could explore additional factors influencing environmental attitudes, such as socioeconomic status and parental influence, to gain a more comprehensive understanding of students' environmental consciousness.

8. EDUCATIONAL IMPLICATIONS

1. Schools should incorporate environmental education as a core subject in the curriculum, focusing on both theoretical knowledge and practical applications to instill responsible environmental behaviours in students.
2. Since differences in environmental attitudes exist between boys and girls, targeted strategies should be developed to encourage equal participation in environmental activities among both genders.
3. Government, private aided, and private unaided schools should adopt customized environmental awareness programs based on their available resources. Government schools should enhance structured programs, while private schools should focus on experiential learning opportunities.
4. As English-medium students show higher environmental awareness, efforts should be made to ensure that Kannada-medium students receive similar exposure through access to global environmental discussions in regional languages.
5. Since no significant difference was observed between urban and rural students, educational strategies should focus on bridging the gap in environmental exposure by offering equal opportunities for students in both settings to engage in sustainability initiatives.
6. Schools should promote extracurricular activities such as eco-clubs, tree-planting drives, waste management projects, and field visits to environmental conservation sites to provide hands-on experiences for students.
7. Teachers should be trained in innovative pedagogical methods to effectively teach environmental education, integrating technology and interactive learning strategies to engage students in meaningful ways.
8. Educational policymakers should emphasize environmental education policies that mandate regular environmental audits in schools and promote partnerships with environmental organizations to enhance awareness programs.

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