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A Study of Environmental consciousness among the students of Arts and Science streams of the Higher Secondary Schools

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Abstract

Main aim of our study is assessing environmental consciousness among Higher Secondary School students in Rampur district, Uttar Pradesh. This investigation made use of a descriptive survey approach. The samples were picked at random. The sample included two hundred students from both private and government schools in the Rampur area. Mean, Standard deviation, & 't' test had been utilised for statistical analysis, once data was gathered, organized & tabulated.

All students in this research had an overall good attitude toward environmental consciousness, although those in the Science stream had a greater level of environmental consciousness than those in the Arts stream. There is a large gender gap in environmental consciousness; girls are more concerned than their boys' counterparts. It demonstrated the significance of gender differences in the formation of ecological consciousness. The students have a deeper familiarity with environmental concerns, difficulties and potential solutions for their preservation and protection. Average results on a survey measuring environmental consciousness were drastically different for urban and rural students. The environmental consciousness of secondary school students in urban areas was shown to be greater. On the other hand, it was shown that private school students had a higher average score than government school students did on an indicator of environmental consciousness.

Keywords: Environmental consciousness, Arts and Science Streams, Higher Secondary Students

1. Introduction

The term "environment" refers to one's physical setting as well as the social and cultural contexts in which they exist. It may be seen of as a system that includes everything in the universe, from air and water to soil and plants to animals. Environmental Awareness is difficulty toward surroundings or environmental problems. All Anthropogenic activities have an influence on environment. The term "environmental consciousness" refers to a process that enables communities and people to learn about or adapt to their physical surroundings and the problems that arise from them (**Akhtar, Sahidullah & Das, 2010).** Environmental awareness provides the interpretation and competence to recognize environmental assests and interconnection between physical and biological components of environment for growth and development. Environmental consciousness is a challenge towards surroundings or environmental problem. It teaches people to care for their environment and equips them with the tools they need to tackle

the issues facing it. Environmental consciousness is also the first step toward people' actualizing their potential for responsible action **(Ali, 2016; Bhartiya, 2017; Ghosh, 2014).**

According to **Goswami & Devi, 2013,** Environmental awareness is consciousness or awareness of an individual towards his surroundings. It assists human being for understanding & sustaining interactions amongst the living and non-living system of environment. **Sandhu, (2015)** examined differences in environmental consciousness between male and female secondary school students across two regions and found that the former fared much better. But students in secondary school in urban regions had far more environmental consciousness than their rural counterparts. **Gupta (2017)** conducted study in Raipur to determine how much attention students in the city pay to environmental issues compared to those in more rural areas. Both urban and rural boys and girls had the same degree of consciousness.

Akkor and Gundz (2017) observed that as compared to male students, female students had a more positive outlook on environmental concerns and are more worried about them. **Gopinsath** (**2014**) found that girls had a higher environmental consciousness than boys, that urban students possess high consciousness compared to rural students, and that students in the Malayalam medium have a higher awareness as English medium students. **Bala (2015)** found significant difference in the two variables; senior's secondary school students living in the urban area are having high environmental awareness in comparison to living in rural area. According to **Kaur (2017)** determined that students majoring in the sciences were more environmentally aware than those majoring in the arts. **Akkor and Gundz (2018)** discovered as female students, on average, have more positive environmental attitudes and are more environmentally conscious than male students. **Bajaj and Khullar (2019)** studied private students have more awareness about environment as compared to government students. **Pillai (2012**) observed as there wasn't a substantial difference in scientific attitude between boys and girls students, but there was a substantial difference in scientific attitude among private and government school students. It was also discovered that there was a considerable variation in pupils' scientific attitudes among urban & rural areas. **Shiv Kant, Y. Sharma (2013)** determined if there's substantial variance into environmental awareness amongst students from urban & rural backgrounds.

Ghosh (2014) conducted research upon environmental awareness amongst higher secondary school students into Assam's Golaghat District and found no statistically significant gender gap in environmental consciousness among the district's high school population. However, research conducted on secondary school students in Golaghat district, Assam, indicated that environmental consciousness varied significantly between students living in rural and urban areas. **Bordhan (2017**) found that female secondary school students have greater awareness concerning the environment and urban secondary school students have greater awareness concerning the environment in Kamrup (Metro) District, Asaam. **Mishra, K. (2012**) discovered that students majoring in science at universities have been much aware of environmental problems compared with arts students and that government school students majoring in science are more aware of environmental issues than arts students. **Ratnakar et al., (2012**) observed science students in the Hyderabad district of Andhra Pradesh's upper secondary schools were found to have a heightened knowledge of environmental issues compared to their arts counterparts. **Dahiya (2016)** noticed gender differences in environmental consciousness between secondary school boys and girls were shown to be statistically significant. **Danielraja (2019)** indicated as there had been substantial variance into mean score consciousness amongst students from science & arts group.

Present study focused upon environmental consciousness into Higher Secondary School students in Rampur district, for studying level of environmental awareness regarding environmental issues.

2. Significance of study:

The current research aimed to examine environmental consciousness among senior-level Arts and Science students in the Rampur area. Since Fourex in 1971 and Stockholm in 1972, several international and national conferences, seminars, as well as workshops of debate have addressed the issue of Environmental Education. The need of raising public awareness of environmental issues was emphasized at length during the Stockholm conference in 1972. The Belgrade Charter established environmental awareness-raising as amongst aims of Environmental Education. Therefore, consciousness is chosen as strategy for achieving the program's goals of protecting nature and avoiding further degradation, since it offers the inspiration for creating a constructive viewpoint towards appreciating diverse environmental challenges. Knowledge is the first step towards protecting our environment. The research focused on high school students since raising environmental consciousness is an urgent requirement with in modern world.

3. Limitations of the Study:

Following are some of study's limitation:

a) Only some of schools in the Rampur District are included in the sample.

b) The research only included students at the secondary school level or above in terms of environmental consciousness.

c) Students from both urban and rural settings were included in current analysis.

d) Only 200 students from Higher secondary level were chosen as a sample, with 100 from government & other 100 from private institutions, with equal gender representation.

4. Objectives of study:

a) For comparing environmental consciousness between scientific & arts students at the school level.

b) For comparing environmental consciousness levels of girls & boys students in a higher secondary school.

c) To compare environmental consciousness in higher secondary school students from urban and rural areas.

d) Compare environmental consciousness amongst students into private & government secondary schools in Rampur district.

5. Hypothesis of study:

a) Comparing scientific and art students at secondary school level, there's no discernible variance in their level of environmental consciousness.

b) At the higher secondary level, there is no gender gap in environmental consciousness.

c) At secondary school level, students in both urban and rural areas have similar levels of environmental consciousness.

d) Secondary school students as in Rampur district, both government and private, do not vary significantly in their environmental consciousness.

6. Methodology and Design of Study:

Sample size:

Current research has sample of 200 students belonging with different Higher Secondary Schools of science & arts streams studying in Government and private schools in Rampur District, with students from both gender. The sample of total cluster of students was selected by using stratified random sampling.

Statistical techniques used:

When analyzing the data, the researcher employed the Mean, the Standard Deviation (SD), and a t-test.

Instrumentation:

The instrument "Environmental awareness questionnaire" was used by researcher in this investigation.

7. Analysis & Interpretation of Data:

Table 1: **Following table portrays the comparison of Environmental Consciousness between Higher Secondary Schools students of Science and Arts Streams.**

Sources of Variation	Number of Students	Mean (M)	Standard deviation (SD)	Degrees of freedom	't' value	H.0
Science	100	44.34	4.788	198	7.439	Rejected
Arts	100	38.47	6.271			

Interpretation:

The t-value in table 1 indicates as there's statistically significant variance in environmental consciousness amongst students in the Science and Arts streams. Table 1 shows that the average score for science majors is 44.34 while the average score for Arts majors is 38.47. Students in the science department have a standard deviation of 4.788, while those in the arts department have a standard deviation of 6.271. Differences in environmental consciousness between Arts and Science streams were statistically significant at the t -value of 7.439. It's possible that students in the sciences have a higher level of environmental consciousness than those in the arts.

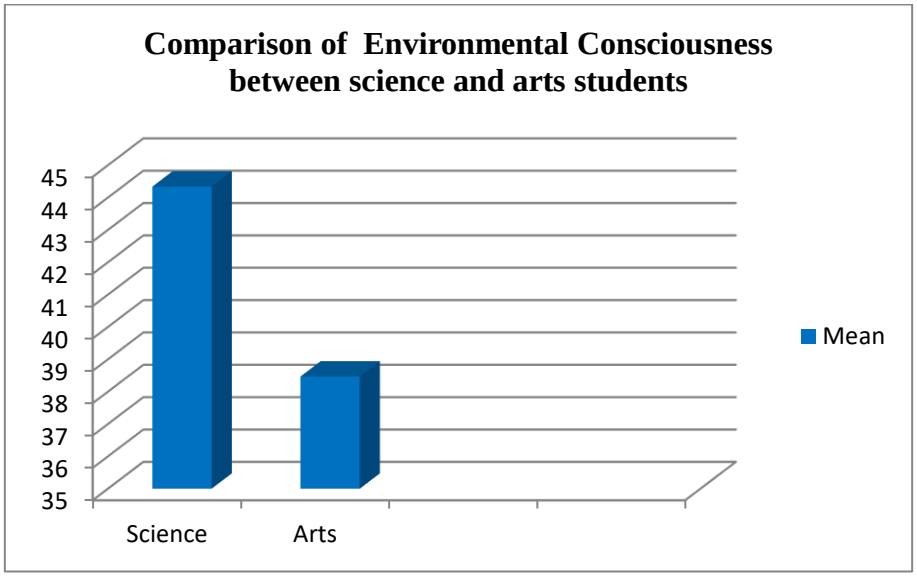

Figure-1 This graph compares the environmental consciousness of students majoring in the arts and sciences at the secondary school level.

Table-2: Comparison of the Environmental Consciousness between boys and girls students at Higher Secondary Schools.

Sources of Variation	Number of Students	Mean (M)	Standard deviation (SD)	Degrees of freedom	't' value	H.0
Boys	100	40.26	4.17	198	3.44	Rejected
Girls	100	42.21	3.83			

Interpretation:

"t"-value in table indicates a statistically significant difference in environmental consciousness amongst boys and girls school students. Thus, H.0-6 cannot be correct. According to the data shown in the table, girls (M= 42.21) are more worried about environmental concerns than boys (M=40.26). The significance of t=3.44 is determined at the.01% level of certainty. This null hypothesis is ruled out since the t-value specifies as there's substantial gender variance in environmental mindset & consciousness amongst students in higher secondary school. The study did not uncover any substantial differences in environmental awareness between boys and girls students.

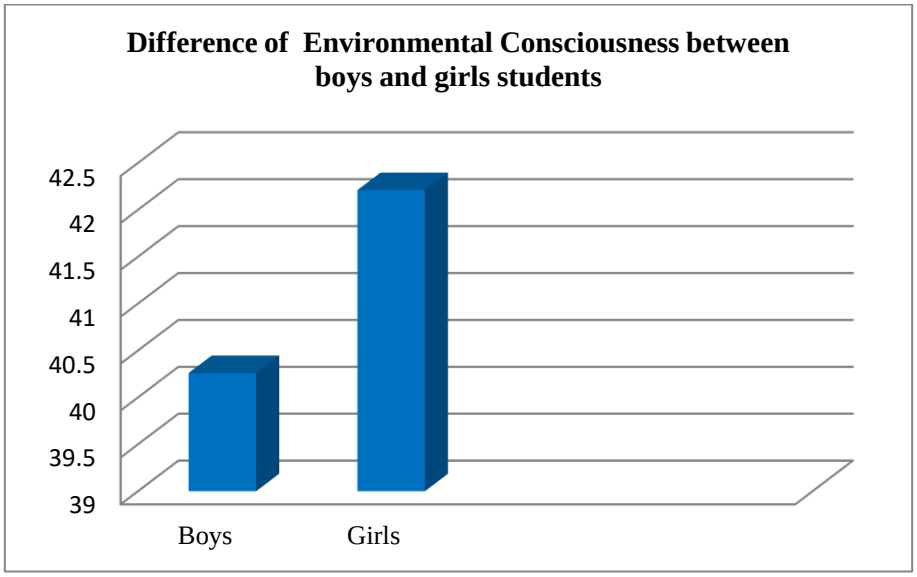

Figure-2: Revealing a research study comparing Environmental consciousness among Higher secondary School boys' and girls' students.

Table-3: The comparison of Environmental Consciousness between urban and rural students of students of higher secondary schools.

Sources of Variation	Number of Students	Mean (M)	Standard deviation (SD)	Degrees of freedom	't' value	H.0
Urban	100	40.86	4.27	198	2.64	Rejected
Rural	100	39.27	4.28			

Interpretation:

Comparing urban and rural students in Higher Secondary School, "t"-value into table shows a statistically significant variance in environmental consciousness. So, the absence of evidence means that H0 cannot be accepted. The data in the table demonstrates that urban dwellers are more worried about environmental concerns than their rural counterparts (M= 39.27). At the.001 level of significance, the value of t (2.64), which indicates a positive result, is deemed to be significant. In contrast to their rural counterparts, urban secondary school students have a heightened understanding of environmental issues, according to the study's authors.

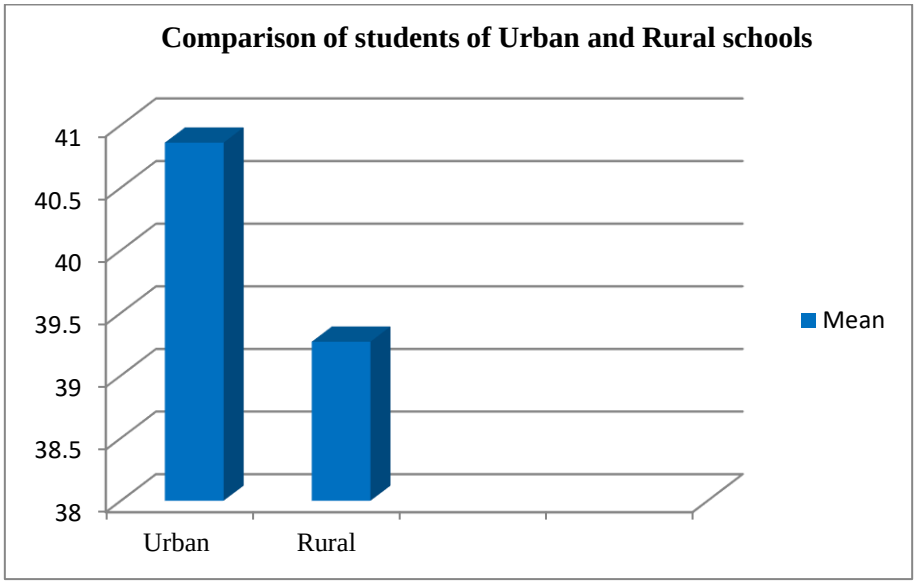

Figure-3: This graph compares the environmental consciousness of students majoring in the urban and rural at the secondary school level.

Table-4: The comparison of Environmental Consciousness between Government and Private students of Higher Secondary schools.

Sources of Variation	Number of Students	Mean (M)	Standard deviation (SD)	Degrees of freedom	't' value	H.0
Government school	100	38.46	6.271	198	2.761	Rejected
Private school	100	40.56	4.30			

Interpretation

"t"-value in table indicates a significant statistical variation in environmental consciousness amongst urban & rural higher secondary school students. Since H0 has no supporting evidence, it must be rejected. Table data shows that urban residents are more concerned about environmental issues than their rural counterparts (M= 39.27). A positive result is considered to be significant at the .001 significance level when the t value is greater than 2.64. The study's authors claim that, compared to their rural peers, secondary school students in urban areas have a deeper grasp of environmental concerns.

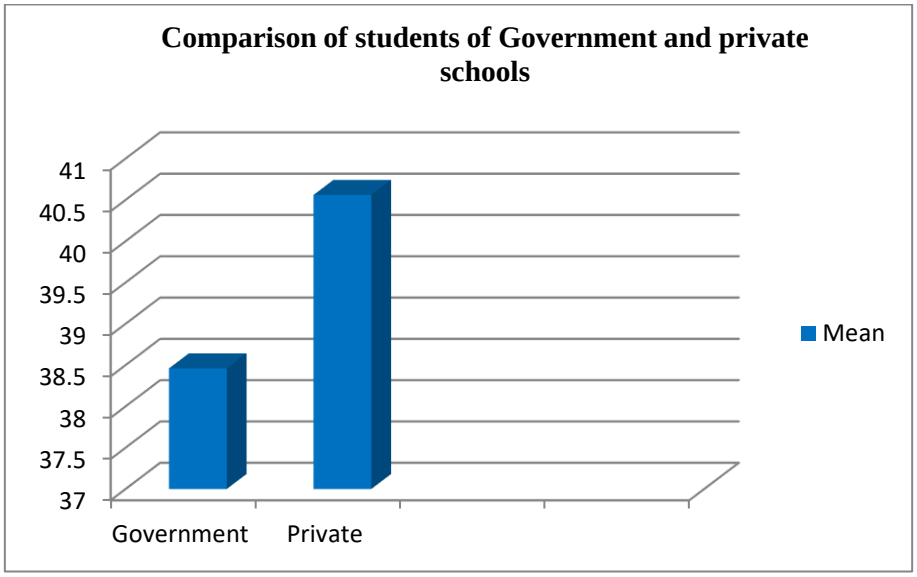

Figure 4-: Displaying the differences and similarities in Environmental consciousness between government and private school students.

Conclusion:

This study aimed to compare environmental consciousness among students from different educational backgrounds and sexes attending both government and private institutions of higher learning. The results show that although all students have an overall favorable outlook on environmental consciousness , those in the Science stream have a somewhat greater degree of consciousness than those in the Arts stream. Not only do girls show more care for the environment than boys do, but there is also a gender gap in students' understanding of environmental issues. This research demonstrates the significance of gender differences in the development of ecological consciousness. The students have a deeper familiarity with environmental concerns, difficulties, and potential solutions for their protection and preservation. This means that studying science really helps students become more environmentally conscious.

There is a large gap in the environmental consciousness of rural and urban higher secondary school students. Secondary school students in urban areas tend to have a greater concern for the planet. While it's true that government school students, on average, have lower average scores than their private school counterparts when comparing knowledge retention, the result suggests that private school students are more environmentally conscious than their government school counterparts.

Based on their research, they concluded that teaching about education programs like a distinct field is the best way to raise students' environmental consciousness in the classroom. Students in the scientific stream, who take environmental education as a distinct course, care more about protecting the planet than their arts-stream counterparts, who learn about environmental issues in the context of other disciplines.

Educational Implications

The present study bears some important educational implications; a few have been enlisted below:

1. Environmental education must be included like distinct subject into curriculum so that students take more interest in understanding about surroundings.

2. Teachers should take interest to organize seminars, debates, discussions, quiz competitions etc. on environmental awareness in the school and colleges.
3. Society together with parents must be conscious of diverse constituents of environment by campaigns, movies and social dramas.
5. Experts should encourage individuals for being prepared for several awareness programs concerning surroundings.

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