



ENVIRONMENTAL AWARENESS AMONG THE COLLEGE STUDENTS IN DIFFERENT EDUCATIONAL STREAMS

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Abstract:

Research Background: According to, Biggs & Tang, (2011), educational streams provide structured curricula focusing on particular domains, such as sciences, arts, commerce, or vocational education, allowing students to acquire knowledge, skills, and competencies relevant to their chosen field. That way in this study, investigator, to find out the impact of educational streams on level of environmental awareness of the college students.

Objectives: The study objective was to find out the significant difference in environmental awareness among the college students of different educational streams. Another objective was to examine the significant difference in environmental awareness among the college students of arts, science, and commerce streams.

Procedure: The study one hundred twenty college students were selected from different educational streams. Their age range were between 19 to 23 years. The purposive sampling technique was used for the selection of the samples. The study educational streams was independent variable and environmental awareness was dependent variable. The study Environmental Awareness Scale (EAS) developed by Haseen Taj (2001) has been used.

Conclusions: It can be concluded that there is no significant difference found in the level of environmental awareness among the college students of different educational streams as well as, insignificant difference found in environmental awareness among the college students of arts, science, and commerce streams.

Keywords: Environmental Awareness, College Students, Educational Streams

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Introduction:

Environmental awareness refers to the understanding and recognition of the natural environment, its components, and the impact of human activities on ecological systems. It involves knowledge about environmental issues, appreciation for the environment, and a sense of responsibility toward preserving and improving ecological balance (Kollmuss & Agyeman, 2002). In simpler terms, it is the consciousness of how individual and collective actions affect nature and the planet's sustainability. The nature of environmental awareness is multidimensional and dynamic. It is not just limited to knowledge but extends to attitudes, values, and behaviors that promote environmental protection. Key characteristics include:



- **Cognitive Aspect:** Awareness involves understanding environmental concepts such as pollution, biodiversity loss, climate change, and resource depletion (Elliott, 2018).
- **Affective Aspect:** It includes emotional responses such as concern, empathy, and care for the environment.
- **Behavioral Aspect:** It motivates actions like conservation, recycling, and sustainable living.
- **Social Aspect:** Environmental awareness fosters community involvement and advocacy for policies promoting ecological balance.

Educational streams provide structured curricula focusing on particular domains, such as sciences, arts, commerce, or vocational education, allowing students to acquire knowledge, skills, and competencies relevant to their chosen field (Biggs & Tang, 2011). According to, Frisk & Larson, (2011), Science Stream, students acquire direct insights into ecosystems, pollution, and sustainability, leading to generally higher environmental awareness through ecological concepts and practical experiments. Same way, suggested, Leal Filho et al., (2019) students in the arts or humanities stream develop awareness via ethical and cultural analysis, highlighting societal impacts of environmental degradation and fostering values-based perspectives. Another researcher Gifford, (2014) suggested, commerce stream students, while centered on business and economics, may gain insights into environmental issues through courses on business ethics and sustainable management, focusing on economic policies related to the environment. In this study, an investigator has focused on finding out the significant difference in environmental awareness among the college students of different educational streams, as well as, to examine the significant difference in environmental awareness among the college students of arts, science, and commerce Streams.

Significance of the Study:

The present study aims to explore environmental awareness among students from different educational streams. By comparing Arts, Science, and Commerce students, the study identifies whether the curriculum or academic exposure influences awareness levels. The findings can guide educators and policymakers in designing targeted environmental education programs. Overall, the study contributes to understanding how educational background shapes students' environmental consciousness.

Objectives of the Study:

1. To study the significant difference in environmental awareness among the students of arts, science and commerce colleges.
2. To examine the significant difference in environmental awareness among the arts and science college students.
3. To examine the significant difference in environmental awareness among the arts and commerce college students.
4. To examine the significant difference in environmental awareness among the science and commerce college students.



Hypothesis of the Study :

1. There will be no significant difference in environmental awareness among the students of arts, science and commerce colleges.
2. There will be no significant difference in environmental awareness among the arts and science college students.
3. There will be no significant difference in environmental awareness among the arts and commerce college students.
4. There will be no significant difference in environmental awareness among the science and commerce college students.

Research Procedure:

➤ **Variables of the Study:**

Independent Variables	Dependent Variable
Educational Streams a) Arts College b) Science College c) Commerce College	a) Environmental Awareness

➤ **Sample Size and Selection Procedure:**

The study one hundred twenty college students were selected from different educational streams. Out of them, forty sample were selected from arts, forty science and same way forty sample were selected from commerce educational streams. Their age range were between 19 to 23 years. The purposive sampling technique was used for the selection of the samples. The study educational streams was independent variable and environmental awareness was dependent variable. The study Environmental Awareness Scale (EAS) developed by Haseen Taj (2001) has been used.

➤ **Operational Definitions:**

a) **Educational Streams:**

In the study, colleges offering education in the arts, science, and commerce streams are collectively called educational streams. Furthermore, students pursuing their education in the arts stream are called arts stream college students. Similarly, students studying in the science stream are referred to as science stream college students, and those studying in the commerce stream are referred to as commerce stream college students.

b) **Environmental Awareness:**

In this study, the college students who achieve the maximum scores on the environmental awareness scale developed by Haseen Taj, as per the manual, has been called as higher level environmental awareness college students. On the other hand, the college students who achieve the minimum scores on the



environmental awareness scale developed by Haseen Taj, as per the manual, has been called as low level environmental awareness college students.

Data Collection Materials:

- **Environmental Awareness Scale:** In this study, the Environmental Awareness Scale developed by Haseen Taj (2001) has been used. The scale is intended for respondents aged 13 years and above. It consists of 60 items covering major dimensions of the environment. The total score ranges from 0 to 60. The scale has a split-half reliability of 0.87, a test-retest reliability of 0.82, and an internal consistency reliability of 0.88. Its validity ranges from 0.76 to 0.82.

Statistical Analysis and Results:

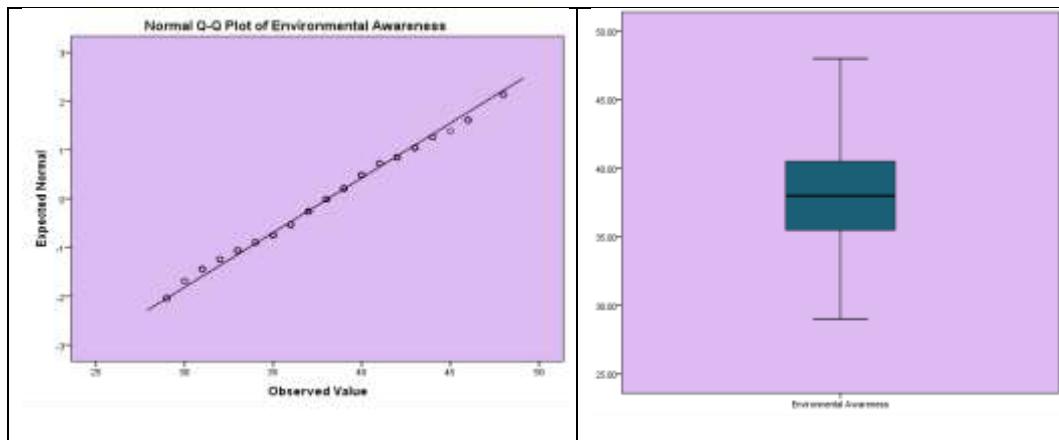
In this part, the investigator has explained significant difference in environmental awareness among the college students of different educational streams. The investigator has analyzed the data in following manner.

Table: 1 shows the assessing normality of the variable environmental awareness

Variable	Descriptive Statistics		Statistic	Std. Error
Environmental Awareness	Mean		38.1000	0.40711
	95% Confidence	Lower Bound	37.2939	
	Interval for Mean	Upper Bound	38.9061	
	5% Trimmed Mean		38.0926	
	Median		38.0000	
	Variance		19.889	
	Std. Deviation		4.45972	
	Minimum		29.00	
	Maximum		48.00	
	Range		19.00	
	Inter quartile Range		5.50	
	Skewness		0.041	0.221
	Kurtosis		-0.310	.438

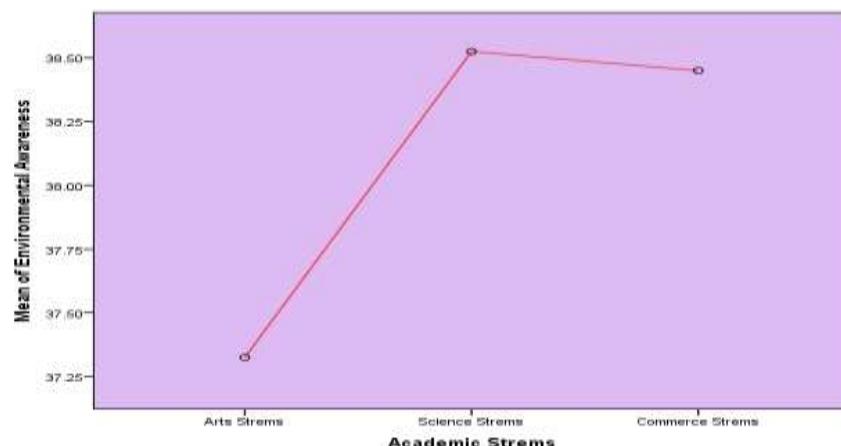
The table 1. Indicates that the trimmed mean value (38.092) is very close to the simple mean (38.100). Skewness and kurtosis describe the shape of the distribution and are used with interval and ratio level data. In this table, the skewness value (0.041) is very close to zero. The skewness value is positive and indicates that the distribution is somewhat positively skewed. The kurtosis value (-0.310) is also close to zero, but it is not zero. The kurtosis value is negative, and that distribution is flatter than normal (platykurtic). However, skewness and kurtosis both have fallen well within the acceptable range of ± 1 . So, both value distributions can be considered normal.

Plot: 1: Shows the normality of the data of variable environmental awareness



Above plots indicates of variable environmental awareness. The shape of the distribution is considered normal.

Plot: 2: Shows the mean of environmental awareness among students of different educational stream



Above plot no. 2 represents the mean scores of environmental awareness across the three academic streams. The horizontal axis displays the three academic or educational streams such as, arts stream, science stream, and commerce stream, whereas the vertical axis shows the mean level of environmental awareness. The science stream students show the highest mean score of environmental awareness (38.523). The commerce stream students follow closely with a mean score of (38.450), showing only a slight decline compared to the Science group. On the other hand, the arts stream students show the lowest mean level of environmental awareness (37.325). Overall, the graph indicates that science stream students demonstrate relatively higher environmental awareness than both commerce and arts stream students, but there is no significantly difference.



Table: 2: Shows summary of One Way ANOVA of the environmental awareness

Source	Sum of Squares	df	Mean Square	F	Sig
Between Groups	36.150	2	18.075	0.907	NS
Within Groups	2330.650	117	19.920		
Total	2366.800	119			

Significant Level, df (2,117) ---- 0.05 = 3.07 0.01 = 4.85

From Table 2, a one-way ANOVA was conducted to examine the effect of educational streams (Arts, Science, and Commerce) on an individual's environmental awareness. The dependent variable, environmental awareness, was assessed for normality across the three groups formed by the educational streams, using Q-Q plots, skewness, and kurtosis, and was found to be normally distributed.

The main effects analysis revealed that the difference in environmental awareness among students of arts, science, and commerce colleges is not significant, $F (2,117) = 0.907$, $p > 0.05$. This indicates that the type of educational stream does not significantly influence on students' environmental awareness. Therefore, there is no significant difference found in the level of environmental awareness among students of Arts, Science, and Commerce colleges.

The one-way ANOVA summary shows that the mean square for between-groups (Mean Square = 18.075) is very small compared to the mean square for within-groups (Mean Square = 19.920). This small difference suggests that variation in environmental awareness is largely due to individual differences within each educational stream rather than differences between streams. Consequently, based on the hypothesis no.1, "*There is no significant difference in environmental awareness among the students of Arts, Science, and Commerce colleges*" is accepted. This means that educational stream is not a determining factor in influencing students' environmental awareness.

Table 3: Shows the difference in environmental awareness among the arts and science college students.

Variable	Educational Streams	N	Mean	SD	t	p
Environmental Awareness	Arts College Students	40	37.325	4.795	-1.163	NS 0.05
	Science College Students	40	38.525	4.426		

Significant Level at 0.05=1.990, 0.01=2.639

Table 3 shows the difference in environmental awareness among arts and science college students. The mean score of arts college students on environmental awareness is 37.325 and standard deviation is 4.795, whereas, the mean score of science college students on environmental awareness is 38.525 and standard deviation is 4.426. The obtained t-value is -1.163, which is not significant at the 0.05 significance level. Therefore, it is concluded that there is no significant difference found in environmental awareness between students of arts and science



colleges. Based on this analysis, hypothesis no. 2, is accepted.

Table 4: Shows the difference in environmental awareness among the arts and commerce college students.

Variable	Educational Streams	N	Mean	SD	t	p
Environmental Awareness	Arts College Students	40	37.325	4.795	-1.123	NS 0.05
	Commerce College Students	40	38.450	4.145		

Significant Level at 0.05=1.990, 0.01=2.639

Table 4 shows the difference in environmental awareness among arts and commerce college students. The mean score of arts college students on environmental awareness is 37.325 and standard deviation is 4.795, whereas, the mean score of commerce college students on environmental awareness is 38.450 and standard deviation is 4.145. The obtained t-value is -1.123, which is not significant at the 0.05 significance level. Therefore, it is concluded that there is no significant difference found in environmental awareness between students of arts and commerce colleges. Based on this analysis, hypothesis no. 3, is accepted.

Table 5: Shows the difference in environmental awareness among the science and commerce college students.

Variable	Educational Streams	N	Mean	SD	t	p
Environmental Awareness	Science College Students	40	38.525	4.426	0.078	NS 0.05
	Commerce College Students	40	38.450	4.145		

Significant Level at 0.05=1.990, 0.01=2.639

Table 5 shows the difference in environmental awareness among science and commerce college students. The mean score of science college students on environmental awareness is 38.525 and standard deviation is 4.426, whereas, the mean score of commerce college students on environmental awareness is 38.450 and standard deviation is 4.145. The obtained t-value is -1.123, which is not significant at the 0.05 significance level. Therefore, it is concluded that there is no significant difference found in environmental awareness between students of science and commerce colleges. Based on this analysis, hypothesis no. 4, is accepted.

Conclusions:

1. There is no significant difference found in the level of environmental awareness among students of Arts, Science, and Commerce colleges.
2. There is no significant difference found in environmental awareness between students of arts and science colleges.
3. There is no significant difference found in environmental awareness between students of arts and commerce colleges.
4. There is no significant difference found in environmental awareness between students of science and commerce colleges.



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