

## **GREEN CULTURE AMONG STUDENT TEACHERS AT SECONDARY LEVEL**

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### **Abstract**

The main problem of the current global society is the depletion of the environment and the related consequences that determine the future of life on Earth. Green culture is a contemporary environmental ideology promoting sustainable economic and ecological development, based on science, politics and aesthetics. This research paper attempts to study green culture among student teachers at secondary level in Ernakulum district. The sample consists of 220 randomly selected student teachers at the secondary level. Data were collected using the Green Culture Scale prepared and standardized by the researcher. Statistical techniques used for analysis were percentage analysis, t-test and ANOVA. The study shows that there is a significant difference in mean Green culture scores among secondary level teacher students.

**Keywords- Green Culture, Sustainable development, Student teachers, Secondary level**

### **Introduction**

The major concern of contemporary global society is about environment depletion and related consequences that determine the future of existence of life on earth. The unendurable exploitation of mankind to nature started long back, but it is after the industrial revolution this devastation reached its peak. Green Culture is not only relating to individual acts or secluded ideas but implies a skill of living, one that integrated lifestyle, values, and behavior. Like all other behaviors, Green Culture needs to be inculcated and nurtured. It may vary according to the changing circumstances so need to modify accordingly.

A cultural environmental theory view understands green culture as a multifaceted construct composed of two conceptual components: "green" and "culture" (Dunlap & James, 2002). The environmental component represents the essential content of green culture that is related to environmental issues, and the cultural components represent the beliefs and perceptions, values and norms, customs and behaviors of a group or society (Altman et al., 1980). When choosing a cultural theory, it is worth distinguishing important approaches in environmental and cultural discourse with an emphasis on certain cultural characteristics.

### **Background of the study**

We know that the natural environment around us is subjected to deterioration due to the over exploitation by mankind. Equipping the young generation with an accurate understanding of the environment, its components, and ways of utilizing the natural resources in a sustainable manner is the necessity of the hour. Not only the ecological issues, the problems of unequal distribution of resources, poverty, gender and caste discrimination, etc., are also coming under sustainability concern. The life system and behavioral pattern should reflect the ethos of sustainability. Such a sustainable culture can be synonymously conceptualized as Green Culture. So, a generation with sustainable culture or Green Culture is essential for the better living of everyone.

### **Need and Significance of the Study**

The fundamental aim of education is to develop socially responsible citizens who can contribute their skills and abilities for the betterment of society. Important responsibility of science teaching is to give the proper awareness about the planet we are living and to develop positive ecological attitude and behavior.

Koulouglotis et al. (2021) investigated that Probing Greek Secondary School Students' Awareness of Green chemistry Principles Infused in context-Based Projects related to Socio-Scientific Issues. Content analysis of project activities first showed the infusion of four GCPs. Students' written reports associated with these activities were then evaluated to examine the incorporation of different GCPs into their argumentation. The four principles identified in the study were also shown to be incorporated into students' argumentation, albeit with varying frequency. Specific themes that demonstrate students' awareness of different GCPs were also identified.

Maliyakkal and Stephen (2020) focused on Greening the Curriculum for Developing Sustainable Disaster Management Competencies among Students through Nurturing Green Culture Behaviour. They emphasized the importance of green curricular approaches for disaster management education. Rather than simply turning institutions into shelters for refugees or disaster victims, schools should be transformed into disaster management hubs both in principle and in practice.

The investigator on searching through the different views and observations of other related researches could identify that very limited studies are done across the globe on this specific area. This lacuna revealed through the literature review process prompted the researcher to understand the true spirit of promoting green culture and conduct this study to investigate the green culture of student teachers at the secondary level.

## **Statement of the Problem**

The present study indicates the level of consciousness and awareness among the teacher trainees. This alone can prevail upon the student community to develop green culture and also to realize their role in protecting our nature. The B. Ed. teacher trainees should have green culture and awareness about the environment. It will be easy with the teacher trainees to educate the school children and the pupils in the field. Hence the study is entitled as; *Green Culture among Student Teachers at Secondary Level*.

## **Definition of Key Terms**

### **Green Culture**

Green Culture is a complex socio-cultural phenomenon, encompasses a set of attitudes, values and norms toward the environment, environmental behavior practices and environmental lifestyle. (Ermolaeva, 2010)

### **Student Teacher at secondary level**

A student who is train to be a teacher, typically one who spends a specified period teaching in a school as a part of a formal teaching qualification (Oxford Dictionary, 2021)

## **Objectives of the Study**

1. To find out the level of awareness on Green Culture among student teachers at secondary level for the total sample and sub sample.
2. To compare the Green Culture scores among student teachers at secondary level for the sub sample.

## **Hypothesis of the Study**

There will be a significant difference in the level of awareness on Green Culture among student teachers at secondary level for the total sample and sub sample.

## **Research Design**

This study is a descriptive research type of research where the researcher tried to study the Green Culture of secondary level student teachers.

## **Procedure**

In this study, the researcher collected data using the Green Culture Scale. It was administered individually to sample student teachers via a Google Form.

## **Population and sample**

Secondary level teacher students studying at St. Joseph College of Teacher Education for Women, M.E.S. Training College, Hill Valley Training College and S. A. M. Training College located in Ernakulum district of Kerala State formed the population for this study. The sample for this study consisted of 220 student teachers at the secondary level.

**Tool Used for the Study**

The following research tool was used in this study;

- Green Culture Scale for student teachers developed and validated by the investigator.

**Statistical Technique Used for the Study**

Statistical techniques such as mean, standard deviation, t-test and ANOVA were used to analyze and interpret the data.

**Analysis and Interpretation**

**1. Percentage computation of awareness on Green Culture among student teachers at secondary level based on total sample**

**Table 1.1**

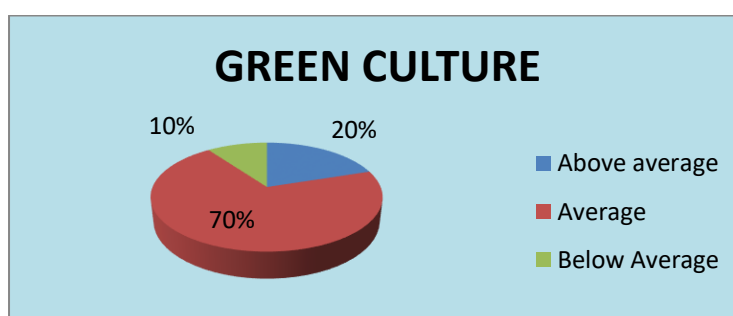
*Overall Percentage of awareness on Green Culture Level among Student Teachers at Secondary Level*

	<b>Level</b>	<b>N</b>	<b>Percentage</b>
1	Above Average Green Culture	44	20
2	Average Green Culture	154	70
3	Below average Green Culture	22	10
<b>TOTAL</b>		<b>220</b>	<b>100</b>

The results depict that 20 per cent of student teachers (44) have above average level of awareness about Green Culture, 70 per cent of student teachers (154) have average level of awareness about Green Culture and 10 per cent of student teachers (22) have below average level of Green Culture. The diagrammatic representation of total sample based on their Green Culture is given in Figure 1.1

**Figure 1.1**

*Overall Percentage of Green Culture among Student Teachers at Secondary Level*



**Table 1.2**

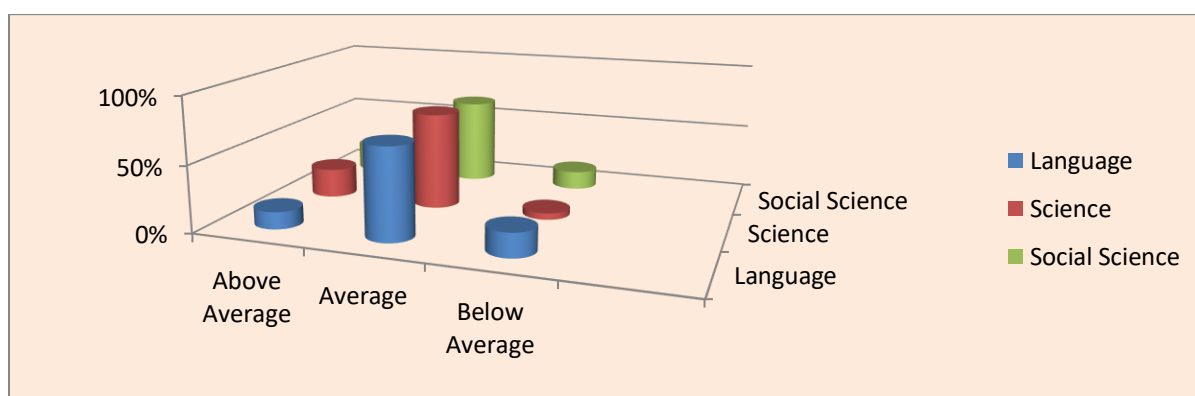
*Percentage Analysis of the scores of Language, Science and Social Science Optional Student Teachers at Secondary Level on Green Culture*

Sl. No.	Level	Language		Science		Social Science	
		N	Percentage	N	Percentage	N	Percentage
1	Above						
	Average	10	13	16	22	15	21
	Green Culture						
2	Average						
	Green	51	69	54	73	47	65
	Culture						
3	Below						
	average	13	18	4	5	10	14
	Green Culture						
<b>Total</b>		<b>74</b>	<b>100</b>	<b>74</b>	<b>100</b>	<b>72</b>	<b>100</b>

The table reveals that science and social science optional student teachers at secondary level show more level of Green Culture (22 & 21 per cent respectively) as compared to language optional student teachers at secondary level (13 per cent). It further depicts that about 73 per cent of science optional student teachers, 69 per cent of language optional student teachers and 65 per cent of social science optional student teachers at secondary level shows average Green Culture, while 18 per cent of language optional student teachers, 14 per cent of social science optional student teachers and 5 per cent of science optional student teachers at secondary level fall at below Green Culture. The diagrammatic representation of sub sample (Optional Subject) based on their Green Culture is given in Figure 1.2

**Figure 1.2**

*Percentage Analysis of the Scores of Language, Science and Social Science Optional Student Teachers at Secondary Level on Green Culture*



**Table 1.3**

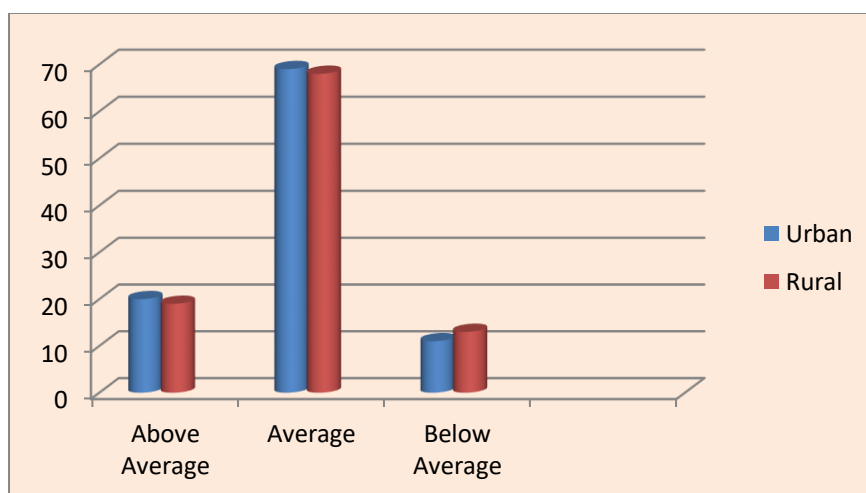
*Percentage Analysis of the Scores of Urban and Rural Student teachers at Secondary Level on Green Culture*

Level	Urban		Rural	
	N	Percentage	N	Percentage
Above Average Green Culture	20	20	23	19
Average Green Culture	69	69	82	68
Below average Green Culture	11	11	15	13
<b>Total</b>	<b>100</b>	<b>100</b>	<b>120</b>	<b>100</b>

The table reveals that urban student teachers at secondary level show more level of Green Culture (20 per cent) as compared to rural student teachers at secondary level (19 per cent). It further depicts that about 69 per cent of urban secondary level student teachers show average Green Culture while 68 per cent rural secondary level student teachers fall at this level, while 13 per cent of rural secondary level student teachers show below average Green Culture while 11 per cent of urban secondary level student teachers fall at below Green Culture. The diagrammatic representation of sub sample (Locality) based on their Green Culture is given in Figure 1.3.

**Figure 1.3**

*Percentage Analysis of the Scores of Urban and Rural Student Teachers at Secondary Level on Green Culture*



**Table 1.4**

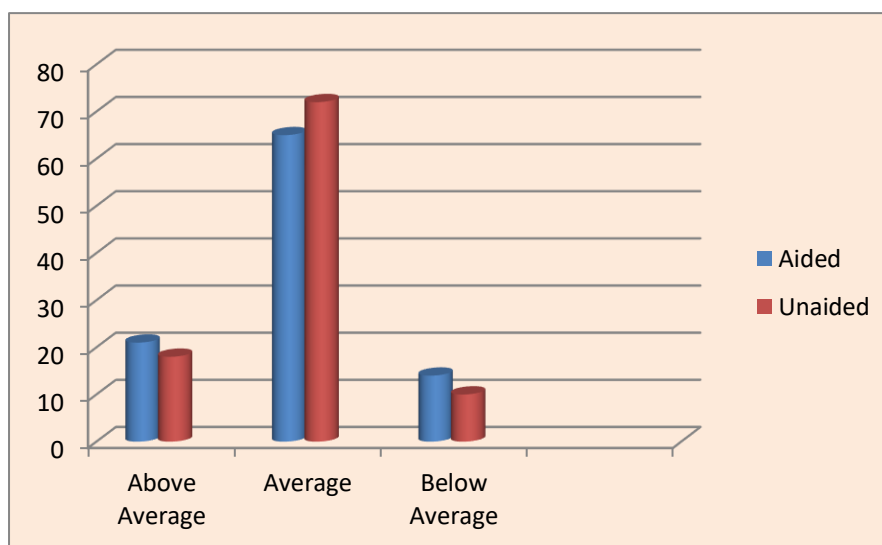
*Percentage Analysis of the Scores Aided and Unaided Student Teachers at Secondary Level on Green Culture*

Level	Aided		Unaided	
	N	Percentage	N	Percentage
Above Average Green Culture	21	21	21	18
Average Green Culture	65	65	87	72
Below average Green Culture	14	14	12	10
<b>Total</b>	<b>100</b>	<b>100</b>	<b>120</b>	<b>100</b>

The table reveals that aided student teachers at secondary level show more level of Green Culture (21 per cent) as compared to unaided student teachers at secondary level (18 per cent). It further depicts that about 72 per cent of unaided secondary level student teachers show average Green Culture while 65 per cent aided secondary level student teachers fall at this level, while 14 per cent of aided secondary level student teachers show below average Green Culture while 10 per cent percent of unaided secondary level student teachers fall at below Green Culture. The diagrammatic representation of sub sample (Management) based on their Green Culture is given in Figure 1.4.

**Figure 1.4**

*Percentage Analysis of the Scores Aided and Unaided student teachers at secondary level on Green Culture*



**Table 2.1**

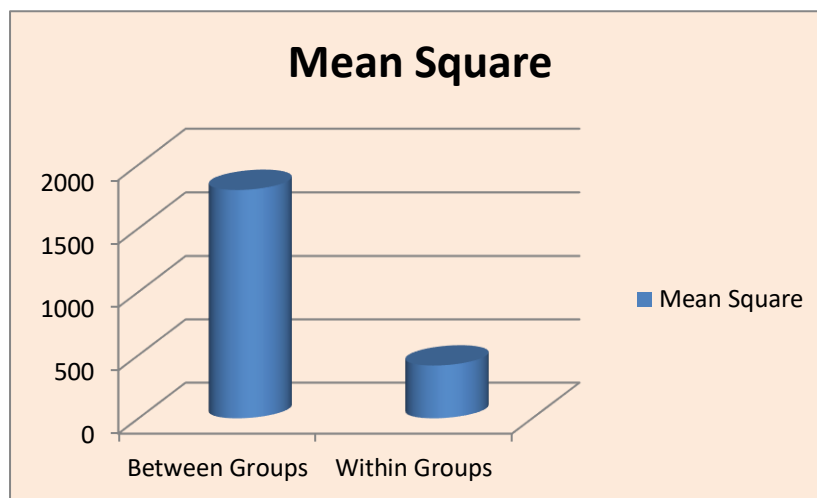
*Comparative Analysis of Green Culture among Student Teachers at Secondary Level Based on Optional Subject*

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>P value</b>	<b>Level of Significance</b>
<b>Between Groups</b>	3601.2154	2	1800.6077	<b>4.31481</b>	<b>0.014503</b>	<b>0.05</b>
<b>Within Groups</b>	93059.8156	223	417.3086			
<b>TOTAL</b>	96661.031	225				

The table shows that the mean difference between Language, Science and Social Science student teachers at secondary level of awareness about Green Culture. The calculated F-value of 4.31481 exceeds the tabulated value at the 0.05 significance level. The researcher concluded that there is a significant difference between the mean scores of Green Culture based on the optional subject. The diagrammatic representation of the comparison of Green Culture among Student teachers at Secondary level based on optional subject is given in the Figure2.1

**Figure 2.1**

*Comparison of Green Culture among Student Teachers at Secondary Level on the Basis of Optional Subject*



**Table 2.2**

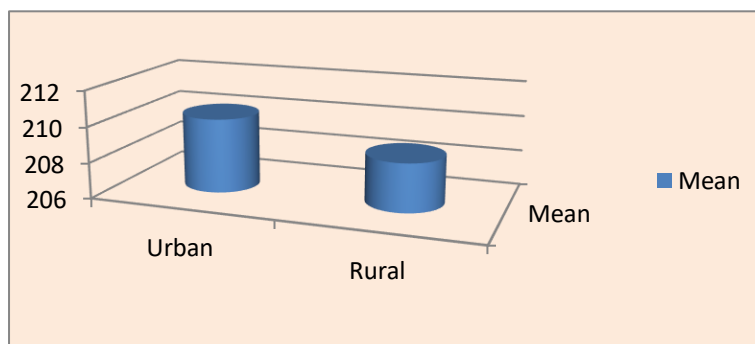
*Comparative Analysis of Green Culture among Student Teachers at Secondary Level Based on Locality*

Group	Mean	Median	STDEV	t-value	Level of Significance
Urban	210.17	210.5	20.57	<b>1.97</b>	<b>0.05</b>
Rural	208.70	208	21		

The above table shows that the mean difference between Urban and Rural student teachers at Secondary level of awareness about Green Culture. The calculated t-value of 1.97 exceeds the tabulated value at the 0.05 significance level. The researcher concluded that there is a significant difference between the mean Green culture scores based on location. A graphical representation of the comparison of Green Culture among student teachers at the secondary level by locality is shown in Figure 2.2.

**Figure 2.2**

*Comparison of Green Culture among Student Teachers at Secondary Level on the Basis of Locality*



**Table 2.3**

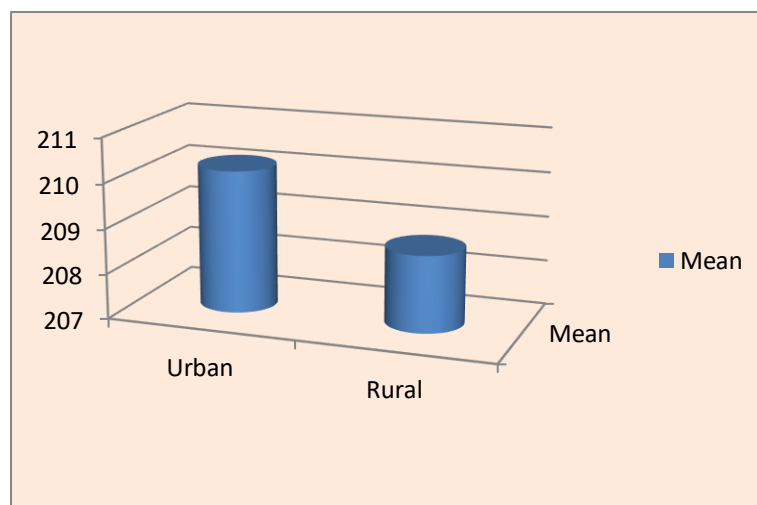
*Comparative Analysis of Green Culture among Student Teachers at Secondary Level Based on Management*

Group	Mean	Median	STDEV	t-value	Level of Significance
Aided	208.4	210	23.28	<b>1.97</b>	<b>0.05</b>
Unaided	210.31	208.5	18.07		

The above table shows that the mean difference between Aided and Unaided student teachers at Secondary level of awareness about Green Culture. The calculated t-value of 1.97 exceeds the tabulated value at the 0.05 significance level. The investigator concluded that there was a significant difference between mean green culture scores based on management type. The diagrammatic representation of the comparison of Green Culture among Student teachers at Secondary level based on management is given in the Figure 2.3

### Figure 2.3

*Comparison of Green Culture among Student Teachers at Secondary Level on the Basis of Management*



### Major findings

Some of the findings drawn from the analysis of data are given below:

1. The study shows that the level of awareness of green culture is average among secondary level student teachers.
2. The study reveals that the student teachers of Science option have most Green Culture, Social Science option have moderate Green Culture and language option have least Green Culture.
3. The study reveals that the student teachers of Urban locality and Unaided management have higher Green Culture nature than Rural locality and Aided management.
4. The study again reveals that there is a significant difference in the mean score of green culture among the student teachers at the secondary level based on sub-samples such as Elective Subject, Location and Management Type.

### Suggestions for Further Research

1. The Survey study may be done by incorporating few more variables

2. The B.Ed. Teacher trainees are covered in this study. The involvement of D. El. Ed level or M. Ed. level students can be given for the further studies
3. Green culture and personality correlates can be investigated.
4. The study can be extended to a large sample in order to examine the reliability of the result and to ensure general applicability of findings.
5. Similar study should be conducted at higher secondary and college levels.
6. There is a need of adding the green culture education as a part of syllabus from elementary level to higher education level.

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