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## The Impact of Environmental Education on Suitable Lifestyle Choices Among Youth: A Study of University of Sargodha

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## ABSTRACT

This study investigates the impact of Environmental Education (EE) and Sustainable Lifestyle Choices (SLC) among university youth. A cross-sectional survey research design enabled data collection from 120 students enrolled at University of Sargodha using stratified random sampling methods to achieve demographic diversity. The study analyzed behavioral intentions as they relate to EE exposure while measuring EE effects on SLC and identifying factors that influence sustainable behavior adoption among young students. A total of 62.5% of participants in this research belonged to the 21–25 age bracket and the survey only included 70.8% female participants who were enrolled in undergraduate studies (77.5%). The researcher used SPSS to perform statistical examinations through correlation analysis and

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regression analysis and ANOVA together with coefficient estimation methods. Results from correlation analysis demonstrated that EE had a statistically significant negative correlation with SLC at the 0.022 significance level and recorded an R-value of 0.185. The results showed EE predicted 3.4% of SLC variation ( $R^2 = 0.034$ ). The Significant ANOVA model test reached  $F = 4.174$  ( $p = 0.043$ ). The results show EE acts as a significant predictor of SLC with a  $\beta$  value of -0.185 and t score of -2.043 and p value of 0.043. The analysis indicates that environmental education (EE) creates measurable effects yet its benefits for promoting sustainable lifestyle choices (SCL) require additional supporting measures. The study findings emphasize the necessity to build value-added policy structures and curriculum improvements which will adapt environmental education into sustainable lifestyle choices routines for youth.

**Keywords:** Environmental Education, Sustainable Lifestyle Choices, Youth, behavioral intentions, Cross-sectional Survey.

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## INTRODUCTION

Environmental education (EE) plays a critical role because developing sustainable behaviors among young people is key to dealing with escalating environmental threats. Through Environmental Education (EE) students gain necessary knowledge together with essential values and aptitudes that enable them to take responsible environmental decisions (UNESCO, 2020). The program functions to boost environmental awareness while helping people choose sustainable lifestyles that match sustainability guidelines (Cebrian, Grace, & Humphris, 2015).

Youth represent as a fundamental segment in this matter since their current attitudes together with behaviors will determine future societal patterns (Imran & Akhtar, 2023). Formal education along with informal education methods allow us to teach enduring environmental values that drive sustainable ecological conservation and social accountability (Stevenson, Brody, Dillon, & Wals, 2013). EE produces complex effects on youth who intend to behave positively but their actions remain uncertain. Frick, Kaiser, and Wilson (2004) articulated that environmental knowledge creates positive effects on sustainable practices but according to Ajzen (1991) and Kollmuss and Agyeman (2002) youth need more than knowledge to accomplish sustainable actions.

Environmental education (EE) acts as a crucial instrument to elucidate the sophisticated network that ties human populations with their cultures to nature (Rana, et al., 2021; Khan, et al., 2021; Sarmad, 2016). EE provides people with the expertise and behavioral standards and practical competencies to handle environmental problems independently and as a collective. The five primary objectives defined by UNESCO (2020) for Environmental Education focus on environmental issue education along with understanding and concern development and problem-solving capabilities toward environmental issue resolution and actions (Ahmed, et al., 2023; Dahri, et al., 2021). The world faces increasing environmental instabilities and energy shortages alongside mounting ecological destruction which makes it vital for citizens to gain better knowledge and responsibility toward the environment. The educational process

proves its ability to create lasting sustainable practices as well as ecological values which become important for generations that follow.

Young students serve as leaders for environmental change so their daily choices directly determine global sustainability results. Environmental education provides a framework through which youngsters can understand ecological principles before applying them to environmentally supportive daily decisions. Despite increased implementation of EE in educational curricula and after-school activities scholars still explore its success in transforming student choices concerning their daily environment. This study investigates university students' sustainable lifestyle choices after receiving environmental education. The study evaluates if environmental education leads students to form behavioral intentions which can connect theoretical knowledge to everyday practices.

## LITERATURE REVIEW

Global climate change is causing significant damage to the planet, with Bouman characterising it as "one of the most concerning challenges humanity has ever encountered" (Bouman et al., 2020).

It is imperative to undertake bold measures to confront the environmental, social, and financial crisis. We must enhance our awareness of the imperative for sustainable growth within the community, engaging both enterprises and individuals in accordance with their respective responsibilities (Ahmad, et al., 2021; Ali, et al., 2020; Ahmad, 2018). The pursuit of a brighter future requires that all individuals, including adolescent and youth, embrace more virtuous behaviours (Naseer, et al., 2024). The individual's personality evolves via experiences and the sociocultural context; so, this comprehension should start in early life and persist as a fundamental concept throughout adulthood (Otto et. al., 2019).

During the formative years, the family structure and educational institutions have a crucial role in fostering environmental awareness. They can influence an individual's viewpoint while evaluating suitable responses to environmental issues. Ecological education may elevate consciousness, allowing individuals to identify their potential contributions to social prosperity via the adoption of sustainable practices and an ecologically conscious lifestyle (Shutaleva et al., 2022).

An individual may participate as an environmental activist, establish organisations focused on planetary protection, adopt a non-activist position while adhering to suitable socio-ecological practices, or, in less common instances, display apathy towards the issue (Shutaleva et al., 2022).

This study's theoretical approach is founded on two principal theories: Ajzen's Theory of Planned Behaviour (TPB) and Bandura's Social Cognitive Theory (SCT), which examine the impact of knowledge, attitudes, and values on sustainable lifestyle choices (Zaheer, et al., 2021; ul Haq, 2017; ul Haq, 2012). The Theory of Planned Behaviour posits that behavioural intentions are influenced by attitudes, subjective standards, and perceived behavioural control (Ajzen, 1991). In the realm of environmental education, it suggests that instructing young individuals about ecological concerns might beneficially influence their views and societal norms,

fostering pro-environmental behaviours. Students educated on sustainability are more inclined to embrace environmentally responsible behaviours (Leeuw et al., 2015). SCT, conversely, underscores the interplay of personal attributes, environmental influences, and behaviour via triadic reciprocal determinism (Bandura, 1986). Collectively, these ideas demonstrate that environmental education may connect awareness with action, fostering behavioural change and advocating for sustainable behaviours among young individuals.

### **Research Objectives**

The following are the research objectives of the study:

- Examining the link between environmental education exposure and young people's behavioral intentions.
- To assess how environmental education affects behavioral intentions for sustainable living decisions.
- To find young people's sustainable behavior determinants.

### **Hypothesis of the Study**

The following are the research hypothesis of the study:

- H<sub>01</sub>: There exists no substantial correlation between environmental education (EE) and sustainable lifestyle choices (SLC) among youth.
  - H<sub>1</sub>: A substantial correlation exists between environmental education (EE) and sustainable lifestyle choices (SLC) among youth.
  - H<sub>02</sub>: Environmental education does not significantly influence sustainable living choices.
- H<sub>2</sub>: Environmental education is a key predictor of sustainable living choices.

## **RESEARCH METHODOLOGY**

This study used a quantitative research technique to investigate the correlation between exposure to environmental education (EE) and behavioral intentions towards sustainable lifestyle choices (SLC) among youth. The study employs a cross-sectional survey approach, suitable for analyzing correlations and trends at a specific moment. This design facilitates a comprehensive study of the impact of environmental education on the youth's aspirations to embrace sustainable lifestyles. The principal data collecting instrument was a structured questionnaire with Likert-scale items, intended to assess both exposure to environmental education and behavioral intentions about sustainability (Rooh, et al., 2025).

The research encompassed a sample of 120 young participants of University of Sargodha, chosen by stratified random sampling techniques to guarantee broad representation of essential demographic groups. The sample size was adequate for robust statistical analysis, incorporating Pearson's correlation to evaluate the relationship between EE and SLC, regression analysis to investigate the predictive capacity of EE on SLC, and ANOVA to assess the overall significance of the regression model (Field, 2013). SPSS software was utilized for data analysis to perform correlation, regression, and ANOVA tests, with a significance threshold established at 0.05 (Pallant, 2020).

### **Reliability Test**

Reliability study was conducted using Cronbach's Alpha to evaluate the internal consistency of the questionnaire (George & Mallery, 2003). This assessment confirmed that the items consistently measured the constructs being examined.

**Table No. 1**  
Reliability Statistics

Cronbach's Alpha	N of Items
.826	30

A reliability study was performed using Cronbach's Alpha to assess the internal consistency and dependability of the research instrument. The questionnaire had 30 items assessing components associated with Environmental Education (EE) and Sustainable Lifestyle Choices (SLC). The Cronbach's Alpha coefficient was 0.826, signifying a high degree of internal consistency among the items. George and Mallery (2003) assert that a Cronbach's Alpha score over 0.8 indicates strong reliability, implying that the instrument employed in this study was dependable and appropriate for subsequent statistical analysis.

## RESULTS

This study's findings elucidate the correlation between environmental education and sustainable living choices among adolescents. The study identified significant patterns and trends, which are examined in the subsequent section, emphasizing the impact of environmental education on behavioral intentions and the determinants of sustainable actions.

### Demographic Analysis

The demographic analysis presents participant background characteristics as base information to analyze sample diversity (Cohen, Manion, & Morrison, 2017).

**Table No. 2: Demographic Profile**

Sr	Variables	Categories	Frequency	Percentage
1	Age	15-20	43	35.8
		21-25	75	62.5
		26-30	1	.8
		31 above	1	.8
2	Gender	Male	33	27.5
		Female	85	70.8
		Other	02	1.7
3	Educational level	Intermediate	16	13.3
		bachelor	93	77.5
		M.Phil.	11	9.2
4	Household income	Less than 30k	17	14.2
		30k-60k	41	34.2
		60k-90k	36	30.0

		90k above	26	21.7
5	Family system	Nuclear	71	59.2
		Joint	39	32.5
		Extended	10	8.3
6	Religion	Muslim	116	96.7
		Non-Muslim	4	3.3
7	Ethnicity	Punjabi	98	81.7
		Balochi	11	9.2
		Pathan	8	6.7
		Others	3	2.5
8	Occupation	Students	107	89.2
		Entrepreneurship	9	7.5
		Employed	4	3.3
9	Residential area	Rural	63	52.5
		Urban	57	47.5

The demographic profile of the participants indicates a heterogeneous population with various traits. The bulk of participants (62.5%) were aged 21 to 25 years, followed by 35.8% in the 15 to 20 years age group. A mere 0.8% belonged to the 26-30 years and 31+ years groups. The sample was primarily female, comprising 70.8%, while 27.5% identified as male and a negligible 1.7% identified as other.

The sample predominantly consisted of persons holding bachelor's degrees, representing 77.5%, followed by 13.3% with intermediate education and 9.2% possessing an M.Phil. degree. The participants originated from diverse economic brackets: 34.2% earned between Rs. 30,000 and Rs. 60,000, 30% between Rs. 60,000 and Rs. 90,000, 21.7% above R. 90,000, and 14.2% earned below Rs. 30,000.

The family structure of participants indicated that 59.2% originated from nuclear families, 32.5% from joint families, and 8.3% from extended families. The majority of participants identified as Muslim (96.7%), while 3.3% identified as non-Muslim. The sample was mostly composed of Punjabis (81.7%), followed by Balochis (9.2%), Pathans (6.7%), and a minor segment (2.5%) identifying with other ethnicities. A significant majority (89.2%) were students, 7.5% engaged in entrepreneurship, and 3.3% were working in diverse sectors. Ultimately, the participants were evenly divided between rural and urban regions, with 52.5% living in rural areas and 47.5% in urban settings. This demographic data offers a comprehensive overview of the participants, highlighting a younger, primarily female, and highly educated cohort with varied socioeconomic and cultural origins.

### **Correlation Analysis**

The statistical analyses performed in this study yield significant insights into the correlation between Environmental Education (EE) and Sustainable Lifestyle Choices (SLC) among youth.

**Table No. 3: Correlations Matrix**

		EE	SLC
EE	Pearson Correlation	1	-.185*
	Sig. (1-tailed)		.022
	N	120	120
SLC	Pearson Correlation	-.185*	1
	Sig. (1-tailed)	.022	
	N	120	120

\*. Correlation is significant at the 0.05 level (1-tailed).

Environmental Education (EE) demonstrates a minus-0.185 correlation against Sustainable Lifestyle Choices (SLC) based on a significance value of 0.022 ( $p < 0.05$ ). The established negative relationship between these two variables is weak according to the results. Statistical analysis indicates that the relationship between EE and SLC exists at the 5% significance level but shows a negative and weak nature. The test results reject the null hypothesis  $H_{01}$  and support  $H_1$  which demonstrates a steadily declining unnoticeable link between EE and SLC.

### Regression Analysis

**Table No. 4: Regression**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.185 <sup>a</sup>	.034	.026	6.45180

a. Predictors: (Constant), EE

The regression model summary reveals that the R-value is 0.185, indicating a weak relationship between EE and SLC. The  $R^2$  value is 0.034, meaning that only 3.4% of the variance in SLC is explained by EE. The Adjusted  $R^2$  of 0.026 suggests that after accounting for potential overfitting, the model still explains a small portion of the variance. The Standard Error of the Estimate is 6.45180, indicating substantial variability in SLC that is not explained by EE. This suggests that while EE has a slight predictive value for SLC, other factors not captured in this model are likely to play a more significant role in shaping youth's sustainable lifestyle choices. The analysis serves to develop hypotheses  $H_{02}$  and  $H_2$  because it establishes whether EE effectively predicts SLC.

### ANOVA Analysis

ANOVA functions as a statistical method which helps researchers find out whether multiple groups display significant differences in their mean values. This

research study used ANOVA to assess whether Environmental Education measures affect Sustainable Lifestyle Choice selection by young people. ANOVA examines both group and individual differences to evaluate the regression model quality together with the independent variable (EE) ability to predict dependent variable (SLC) outcomes.

**Table No. 5: ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	173.753	1	173.753	4.174	.043 <sup>b</sup>
	Residual	4911.838	118	41.626		
	Total	5085.592	119			

a. Dependent Variable: SLC

b. Predictors: (Constant), EE

The analysis of variance test for regression demonstrates a 4.174 F-statistic together with a 0.043 p-value ( $p < 0.05$ ) thus verifying the statistical importance of the regression model. The model showed statistical significance because it proves to predict Sustainable Lifestyle Choices (SLC) from Environmental Education (EE) inputs. Future research should incorporate other explanatory variables because the relationship strength remains small according to the  $R^2$  value.

Therefore, ANOVA test results indicate the rejection of  $H_{02}$  and support for  $H_2$  because EE establishes a modest connection to SLC prediction.

### Coefficient Analysis

A coefficient analysis determined the prediction capabilities of environmental education regarding sustainable lifestyle choices by investigating the variable relationships.

**Table No. 6: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.971	4.216		8.769	.000
	EE	-.228	.111	-.185	-2.043	.043

a. Dependent Variable: SLC

The coefficient table establishes additional information regarding the connection between EE and SLC. The unstandardized value of -0.228 indicates SLC decreases 0.228 units when EE increases by one unit. The weak negative relationship emerges from the standardized coefficient (Beta) of -0.185. The negative relationship between EE and SLC exists because the t-value equals -2.043 and the p-value reaches 0.043 with statistical significance confirmed. Yet the negative sign on this relationship shows greater EE exposure leads to diminished SLC adoption.

This result provides empirical support for the hypothesis which states environmental education correlates to sustainable lifestyle choices in a negative and weak manner. Proof has thereby been granted for  $H_2$  against  $H_{02}$ .

The study demonstrates environmental education generates small and statistically significant yet unfavorable effects on sustainable choices of youth. Additional forces seem more powerful than EE in forming sustainable actions among young people.

## DISCUSSION

The results of this study, indicating a weak yet statistically significant negative relationship between Environmental Education (EE) and Sustainable Lifestyle Choices (SLC) among youth, align with existing literature that emphasizes the complexity of translating environmental knowledge into sustainable behaviors.

This study has shown that while EE can enhance environmental knowledge and attitudes, this does not always lead to corresponding behavioral changes. For instance, a study by Liu, Hsueh, and Chen (2018) found that environmental education positively correlates with environmental attitudes and behaviors in the context of ecotourism. However, other studies highlight the presence of a "value-action gap," where individuals' pro-environmental values do not consistently result in sustainable actions.

Moreover, the effectiveness of EE interventions can vary based on their design and implementation. Rahman et al. (2022) demonstrated that targeted EE interventions significantly improved environmental sustainability practices among Malaysian youth. Similarly, Dharangutti et al. (2024) reported that EE programs influenced students' sustainable transportation choices, indicating that well-structured EE can impact specific behaviors.

These findings suggest that while EE has the potential to influence sustainable behaviors, its impact is often moderated by factors such as program design, cultural context, and the presence of supportive infrastructures. Therefore, to enhance the effectiveness of EE in promoting sustainable lifestyle choices among youth, it is essential to integrate EE with practical applications, community engagement, and supportive policies that address the barriers to behavior change.

## CONCLUSION

The research conducted analysis between environmental education and sustainable lifestyle choices of youth which documented a statistically relevant though weakly negative relationship. The negative correlation established through this research demonstrates that environmental education plays a crucial role but knowledge acquisition alone does not ensure sustainable lifestyle development.

Environmental education needs a comprehensive and application-oriented strategy because behavioral intentions develop from multiple social elements and psychological factors and structural factors. The findings support existing research that shows effective educational strategies need to integrate behavioral strategies with contextual understanding to achieve real results.

## Recommendations

This study finding drive the recommendation of policies described as follows:

- Educational programs for environmental studies should create meaningful hands-on community engagement projects where students gain practical experience to boost their likelihood of behavioral change.
- Education authorities should enforce mandatory sustainability education which focuses on local environmental issues at national and provincial levels through interdisciplinary programs in schools and universities.
- Policy decision-makers should authorize programs which merge education methods with behavioral influence techniques like rewards and peer advice together with social norms campaigns for strengthening youth adoption of sustainable practices.
- Educators need modern teaching methods coupled with training about environmental psychology and sustainability education as part of their professional development to teach students for critical thinking and behavioral changes.
- Several types of organizations should unite their efforts to create all-encompassing plans which unite environmental education activities to local development projects along with government policy execution.
- A periodic assessment system at the national level should be set up to judge environmental education program effectiveness and behavioral change results which enables policy changes supported by evidence.

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