



## *The Role Of Environmental Literacy In Promoting Conflict Management Skills Among University Students In Rawalpindi And Islamabad*

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### Abstract

Environmental literacy is a widely recognized term, used in different contexts. It is the critical factor of sustainable development and conflict management. Managing conflicts in the university environment are essential for the better educational outcomes. In this study, the role of the environmental literacy in promoting conflict management skills among university students was explored. The objective of the study was to find out the association between environmental literacy and conflict management skills. The researcher used quantitative research approach and survey research design. Questionnaire was used as a data collection tool. The population of the study were all the undergraduate students enrolled in Education departments at public sector universities of Rawalpindi and Islamabad. Simple random sampling technique was used to collect the data from the respondents. The sample of 323 undergraduate students of education departments was taken according to the Yamanes' formula. Chi-square was used to check the association between variables across different levels. Findings from this study revealed that there is a significant association between the both variables. The study recommended that curriculum developers should recognize the importance of environmental literacy and should integrate it at each level (i.e. primary, secondary and tertiary). The curriculum must be prepared in an interactive way so that learners must be able to understand what they have learnt, recognize its importance and implement it in the real-world situations.

**Keywords:** Environment, environmental education, environmental literacy, sustainable development, conflict, conflict management.



## Introduction

Environmental literacy is the outcome of environmental education. It is also a multi-dimensional concept varies according to the context and discipline. It is a combination of knowledge and awareness, skills and attitudes that an individual possess to make informed decisions and take responsible actions in order to protect and improve the environment (Suratmi et al., 2024). It can also be defined as an individual's understanding and awareness, competencies and inspiration to make informed decisions that consider his or her relationships with communities, societies, natural environment and successive generations (Fang et al., 2023). Environmental literacy is not a limited field restricted only to acquire information about the environmental issues, yet it is a broader concept that develop and promote critical thinking skills, problem-solving skills, attitudes, values and behaviours to make the individuals capable of protecting the environment (Taimur & Sattar, 2020). It is basically, the ability of an individual to interact with their environment (Goldman et al., 2018). Environmental literacy is considered as the main theme of the 21st-century that covers different aspects of literacy i.e. civic literacy, health literacy, financial, business, economic and entrepreneurial literacy and world awareness (Suratmi et al., 2024). In the contemporary world, environmental literacy is highly emphasized in the field of education. Moreover, the International conference that has been happening in the recent decades highlighted the importance of changing lifestyles and discovering ways to prepare young people and integrate their environmental initiatives with them, which fosters environmental literacy (NAAEE, 2010).

Conflict can be seen as a condition where individuals or group of people experience disagreements due to differences in ideas, values, attitudes, interests, or beliefs (Chen & Liu, 2020). Conflicts can appear in various scenarios, such as offices, educational institutions, societies or personal relationships, and may involve verbal and physical confrontations. Therefore, effective conflict resolution strategies are essential to address and resolve conflicts effectively, promoting mutual understanding and cooperation (Fisher, 2022). Conflict management is the process to identify, solve and handle conflicts wisely and efficiently. Since conflicts are common in the work environment, thus it is necessary for the people to understand what conflicts are and know how to resolve those (Ukata et al., 2020). Before conflict becomes a major threat to any organization, all members of the workplace must need to understand how to handle it efficiently (Mckinney, 2019). Minov and Maric (2023), highlighted in his study that conflicts can be managed creatively by using conflict management skills and techniques. In managing conflicts, various methodologies and approaches can be used to effectively manage and resolve disputes. One commonly used method in conflict management is the negotiation. In this method, groups involved in the conflicts directly discuss the issues and finally reach an agreement through dialogue (Tabassum, 2020). It includes different skills or abilities i.e. communication, collaboration, emotional intelligence, empathy and creative problem solving that helps to address the conflicts in a positive direction (Fisher et al., 2020). Although these skills are widely discussed in the literature, but this study specifically investigates about how environmental literacy promotes the conflict management skills among university students.

## Problem Statement

Conflicts or disputes are most common inside the university environment that occurs due to different reasons i.e. social relationships, difference in opinions and multiple backgrounds. Such conflicts affect the peace of learning environment that hinders the



attainment of goals of a campus. In order to address these conflicts, strong conflict management skills are required. The primary goal of university education is to equip the students with the knowledge, skills, and attitudes that are critical to lead an enriched life and contribute to the development of society. Thus, there is a need to understand the association between environmental literacy and conflict management skills. This study investigated the association between environmental literacy and conflict management skills among university students in Rawalpindi and Islamabad.

### Objective of the study

- i. To find out the association between environmental literacy (cognitive component) and conflict management (problem solving skill).
- ii. To find out the association between environmental literacy (affective component) and conflict management (empathy skill)

### Hypothesis

**H<sub>01</sub>:** There is no significant association between environmental literacy (cognitive component) and conflict management (Problem solving skill).

**H<sub>02</sub>:** There is no significant association between environmental literacy (affective component) and conflict management (empathy skill).

### Methodology

The research approach for this study was quantitative. It employed survey and descriptive design. According to Cresswell (2013), survey research is used to gather the information about opinions, behaviours and attitude within population that facilitate generalization of the data. The population of the study were 1922 undergraduate students enrolled in Education departments at public sector universities in Rawalpindi and Islamabad. Simple random sampling technique was used to collect the data from respondents. In this technique, every member of the population has an equal chance to be selected. The total sample of 323 was taken according to the Yamane's formula. Moreover, the sample size for every university was calculated using the formula suggested by Krejcie & Morgan (1970).

### Data Collection

The researcher collected the data through self-made questionnaire. Data was collected from 323 respondents out of 263 were female and 60 were male. Researcher visited the university campuses and collected the data by distributing the printed questionnaires to the respondents. Ethical considerations i.e. informed consent and willingness to participate in the research study were strictly obeyed.

### Data Analysis

The findings of the study revealed that there is a strong association two variables i.e. environmental literacy (cognitive component) and conflict management skills (problem-solving) across different levels i.e. low, medium and high (see table 4.1). The statistical analysis give the calculated chi square value of (216.926) which is greater than the chi square table value of (9.49) at 0.05 significance level and 4 degree of freedom. Since  $t \text{ (cal)} \geq t \text{ (tab)}$ , thus the results are statistically significant. Also. The p-value (0.000) is less than 0.05 significance level ( $p \leq 0.05$ ), thus the null hypothesis stated as "there is no significant association between the environmental literacy (cognitive component) and conflict management (problem-solving skill)" was rejected. This indicated that students who have higher level of cognitive environmental literacy tend to have higher conflict management skill i.e. problem-solving and vice versa. The contingency coefficient value of (0.634)



revealed that there is a strong relationship between both variables thus as one variable changes the other also changes.

**Table 4.1: Environmental Literacy (cognitive component) and conflict management (problem-solving skill)**

Environmental literacy cognitive component	Conflict management problem solving skill			df	$\chi^2$ cal.	$\chi^2$ tab.	Sig. p-value	Contingency coefficient (C)
	Low	Medium	High					
	Percentages							
Low	62.9	37.1	0.0	4	216.926	9.49	.000	.634
Medium	7.6	66.7	25.7					
High	0.5	19.7	79.8					
Total	9.6	36.8	53.6					

The table 4.2 indicated the association between the variables environmental literacy (affective component) and conflict management (empathy) skill across different levels i.e. low, medium and high. In this table chi square calculated value is (230.336) and the chi-square table value is (9.49) at 4 degree of freedom at 0.05 significance level. Since the t-calculated value is greater than t-tabulated value  $t(\text{cal}) \geq t(\text{tab})$ , thus the results are statistically significant. Also, the p-value (0.000) is less than 0.05 significance level ( $p \leq 0.05$ ), thus we reject the null hypothesis stated as "there is no significant association between the environmental literacy affective component and conflict management (empathy) skill". This showed that pupils who have higher level of affective environmental literacy tend to have higher conflict management skill i.e. empathy and vice versa. The table also presented the contingency coefficient value of (0.645) which highlighted that the relationship exist between the both variables are stronger (see table 4.2).

**Table 4.2: Environmental Literacy (affective component) and conflict management (Empathy skill)**

Environmental literacy affective component	Conflict management skill empathy			df	$\chi^2$ cal.	$\chi^2$ tab.	Sig. p-value	Contingency coefficient (C)
	Low	Medium	High					
	Percentages							
Low	80.6	3.2	16.1	4	230.336	9.49	.000	.645
Medium	19.0	57.0	24.0					
High	0.0	15.6	84.4					
Total	13.6	27.2	59.1					



### Discussion

The findings of this research revealed that there is a significant and strong association between the both variables i.e. environmental literacy and conflict management skills. The chi-square value ( $\chi^2 = 216.926$  and  $\chi^2 = 230.336$ ) with a (p-value= 0.000), and the significance level of 0.05, confirms that the association occurs between the both variable are statistically significant. The contingency coefficient ( $C = 0.634$  and  $C = 0.645$ ) further showed that there is a strong association between the both variables, highlighting that environmental literacy meaningfully enhances the individuals' ability to manage and resolve conflicts. The cognitive component of Environmental literacy enhances students' knowledge about social justice and peaceful environment that enhances students' problem solving skills which are essential for the management of conflicts. The same findings were concluded by the Siswati and Suratno (2023), they found that the cognitive ability and critical thinking skills of students are positively co related with their problem-solving skills. The Hungerford and Volk (1990), also supported the idea that the knowledge shapes the responsible behavior of individuals. On the other hand, the affective component of Environmental literacy instills the emotional understanding and values in the learners that helps in gaining the positive and peaceful outcomes. Tilbury (1995) also highlighted that individuals with higher affective awareness exhibit more emotional intelligence with patience, important for reducing tensions.

### Conclusion

This study investigated the role of environmental literacy in promoting the conflict management skills. The results of the study indicated that cognitive component of environmental literacy enhances students' problem solving skills. In this regard pupils who have the awareness of environmental and social challenges i.e. civic rights, peace, justice and equality—are more able to solve the conflicts in a peaceful manner. Thus, students with high levels of environmental literacy think critically about the conflicts, its' origin, analyse the situation and then find suitable solutions. On the other hand, affective component of environmental literacy significantly strengthens the emotional intelligence of the learners. Thus, pupils' learn how to behave in conflicting situations and handle their emotions. These findings highlighted that environmental literacy in the university education is not only about acquiring the factual information, but it also influence the personality of students in terms of behaviour, attitude and emotional intelligence that are essential in promoting peace in the diverse educational or social environments.

### Recommendations

- Curriculum developers should recognize the importance of environmental literacy. They should integrate it at each level (i.e. primary, secondary and tertiary). The curriculum must be prepared in an interactive way so that learners must be able to understand what they have learnt, recognize its importance and implement it in the real-world situations.
- The study is conducted only at undergraduate level using the survey design. It is recommended that it could also be conducted on different levels i.e. primary, secondary or post graduate level by using other research methods and designs.

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