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FOSTERING SUSTAINABILITY THROUGH EMOTIONAL INTELLIGENCE: A STUDY OF EDUCATORS' ROLE IN ENVIRONMENTAL EDUCATION

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ABSTRACT
With an emphasis on the mediating function of environmental attitudes, this study examines the relationship among educators' involvement in environmental education, emotional intelligence, and environmental attitudes. The study tested a conceptual model based on socio-emotional and environmental behavior theories using regression analysis on a sample of 328 higher education teachers in Kerala. The findings showed that environmental attitudes and participation in environmental education are significantly predicted by emotional intelligence. Furthermore, the relationship between emotional intelligence and engagement was found to be partially mediated by environmental attitudes, suggesting that emotionally intelligent educators are more likely to participate in environmental education because of their more robust pro-environmental views. These results highlight how crucial it is to incorporate environmental values and emotional intelligence into teacher preparation programs in order to advance more successful sustainability education. The study offers useful insights for promoting environmentally conscious teaching methods and adds to the expanding conversation on the affective and attitudinal underpinnings of education for sustainable development.
Keywords: Emotional Intelligence, Environmental Attitudes, Environmental Education, Higher Education, Kerala

INTRODUCTION

The demand for sustainability has grown globally due to environmental degradation, climate change, and the depletion of natural resources, making education a vital change agent. Education is now viewed as a transformative force that can mold the values, behaviors, and attitudes necessary for a sustainable future, going beyond simply imparting knowledge. According to UNESCO (2017), education for sustainable development must foster affective and behavioral learning in addition to cognitive skills. Teachers play an important role as frontline implementers of this agenda, not only by providing environmentally relevant content but also by modeling and advocating for sustainable practices. Current research indicates that emotional and psychological engagement is just as important as factual knowledge and awareness-raising, which were the traditional focuses of environmental education. A number of prosocial behaviors, such as empathy, ethical reasoning, and resilience, have been found to be significantly predicted by emotional intelligence, which Mayer,

Salovey, and Caruso (2004) defined as the ability to perceive, comprehend, and regulate emotions. These characteristics are essential for encouraging sustainable behavior, especially in educational environments where teaching and learning are greatly impacted by the emotional climate. High emotional intelligence teachers are frequently better able to create inclusive learning environments, cultivate close bonds with students, and promote in-depth reflection all of which are necessary for transformative environmental learning. This leads to the first proposition: Emotional intelligence is positively associated with educators' engagement in environmental education (H1).It's possible that emotional intelligence has an indirect impact on environmental action. An individual's environmental worldview, which in turn directs behavior, may be shaped initially by emotional awareness and empathy. The idea of environmental attitudes general views, worries, and values about the environment encapsulates this. Stern (2000) asserts that these attitudes serve as the driving force behind actions that have an impact on the environment. Strong emotional competencies have been linked to increased environmental concern and responsibility, according to a number of studies (Poškus, 2018; Moisander et al., 2020). This suggests that emotional intelligence provides the attitudinal basis required for sustainability engagement. Hence, Emotional intelligence is expected to be positively associated with environmental attitudes (H2).Behavior has long been thought to be strongly predicted by environmental attitudes. According to Dunlap et al. (2000)'s New Ecological Paradigm (NEP), people who have an eco-centric worldview are more likely to take actions that safeguard and conserve the environment. Such viewpoints may have an impact on educators' decisions to support green initiatives, integrate sustainability into their lessons, or inspire students to lead eco-conscious lives. Thus, Environmental attitudes are likely to be positively associated with educators' engagement in environmental education (H3).A conceptual framework is put forth based on the reviewed literature, according to which educators' involvement in environmental education and their attitudes toward the environment are directly influenced by emotional intelligence. It is also anticipated that environmental attitudes will mediate this relationship. Below is an illustration of this conceptual model:

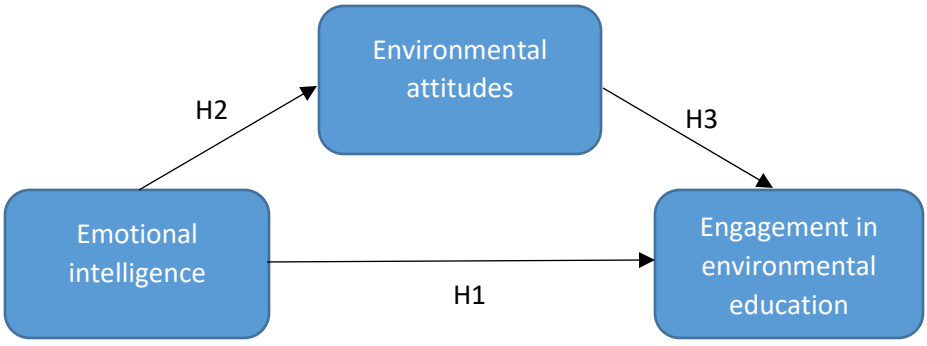

Fig 1. Conceptual model

Despite these theoretical connections, there are still few empirical studies examining the ways in which environmental attitudes act as a mediating factor between emotional intelligence and environmental teaching practices. The majority of previous research has addressed environmental

concern and emotional intelligence separately, without examining how they interact to influence educational behavior. Considering the growing significance of socio-emotional skills in education for sustainable development, this is a critical gap. Addressing this, the study posits that Environmental attitudes mediate the relationship between emotional intelligence and engagement in environmental education (H4).This study intends to contribute to the growing conversation between emotional intelligence and sustainability in education by examining these relationships and advancing our knowledge of how emotional capacities influence educators' environmental roles. It is anticipated that the results will provide theoretical understanding and real-world applications for bolstering the emotional and attitude underpinnings of environmental education.

METHODS

This research utilized a quantitative, cross-sectional methodology to examine the correlation between emotional intelligence, environmental attitudes, and educators' involvement in environmental education, emphasizing the prospective mediating influence of environmental attitudes. The participants comprised 328 educators employed in higher education institutions throughout Kerala, chosen through stratified random sampling to guarantee diversity in academic discipline, gender, and institutional type. The Wong and Law Emotional Intelligence Scale (WLEIS), a 16-item tool that looks at four important emotional skills, was used to measure emotional intelligence. The Revised New Ecological Paradigm (NEP) Scale, created by Dunlap et al. (2000), was used to measure people's attitudes toward the environment. It does this by asking 15 questions that show how people feel about the environment. A structured self-developed scale was used to measure how involved educators were in environmental education. The scale looked at how well they integrated environmental content into their lessons, how well they encouraged eco-friendly behavior, and how well they took part in initiatives related to sustainability. All scales employed a 5-point Likert-type format, and internal consistency reliability was validated through Cronbach's alpha. Data were gathered through both online and offline methods, ensuring informed consent from all participants and obtaining ethical approval from the institutional review board. We used SPSS version 26 to look at the data. Descriptive statistics summarized the responses, while Pearson's correlation analyzed the relationships between the variables. To evaluate the proposed mediation model, a sequence of regression analyses was performed in accordance with the Baron and Kenny (1986) methodology, and the significance of the indirect effect was subsequently examined utilizing the Sobel test. The threshold for statistical significance was established at $p < .05$.

DATA ANALYSIS

Demographic profile

The research surveyed 328 teachers presently employed in higher education institutions throughout Kerala. The sample showed that there were a lot of women in it, which shows that more women are getting involved in the academic profession. Most of the people who answered the survey were between the ages of 26 and 35, which suggests that most of the teachers were just starting out in their careers. Most of the people who took part had completed postgraduate degrees and the National Eligibility Test (NET). A large number of them also had doctoral degrees, which shows that the teaching workforce is well-educated. The respondents had different amounts of teaching

experience. Most of them (3 to 6 years) had been teaching for 3 to 6 years, and the next most (6 to 9 years) had been teaching for 6 to 9 years. This suggests that the sample was mostly made up of mid-level career professionals. A large number of the teachers worked in self-financing colleges, followed by those who worked in aided institutions and a smaller number who worked in government colleges. This distribution accurately represents the employment landscape in Kerala's higher education sector, where self-financing institutions account for a significant proportion of teaching appointments.

Table 1: Reliability statistics

Construct	No of items	Cronbach's alpha
Emotional intelligence	16	0.89
Environmental attitude	15	0.84
Engagement in environmental education	10	0.81

Cronbach's alpha was used to check the reliability of the scales used for the study and the results are presented in table 1. The Emotional Intelligence scale (WLEIS) achieved an alpha coefficient of 0.89, indicating excellent internal consistency. The Environmental Attitudes scale (NEP) showed a Cronbach's alpha of 0.84, while the Engagement in Environmental Education scale reported an alpha of 0.81. Both fall within the acceptable range of good internal consistency. These results suggest that the items within each scale consistently measure the intended constructs, supporting the reliability of the instruments used in the study.

Table 2: Correlation analysis

Constructs	Mean	SD	Emotional intelligence	Environmental attitudes	Engagement in environmental education
Emotional intelligence	3.92	0.52	1		
Environmental attitudes	4.01	0.46	0.51**	1	
Engagement in environmental education	3.87	0.55	0.47**	0.58**	1

N=328;

** Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis results presented in table 2 revealed several statistically significant relationships among the study variables. Environmental Attitudes and Emotional Intelligence had a moderately positive correlation ($r = .51$, $p < .01$), indicating that teachers with higher emotional intelligence are more likely to be pro-environmental. Emotionally intelligent teachers are more likely to engage in sustainability-related teaching and activities, as evidenced by the significant positive correlation between emotional intelligence and engagement in environmental education ($r = .47$, p

<.01). The notion that educators who value environmental issues are more actively involved in environmental education is further supported by the strong positive correlation between Environmental Attitudes and Engagement (r =.58, p <.01). At the 0.01 level, all correlations were statistically significant, highlighting significant connections between the variables being examined.

Table 3: Regression analysis for impact of emotional intelligence on engagement in environmental education (H1)

Model	R	R square	Adjusted R square	Std. Error of the Estimate
1	0.472	0.223	0.221	0.483

Predictor	B	SE B	β	t	Sig.
(constant)	1.82	0.21		8.67	<.001
Emotional intelligence	0.52	0.05	0.472	9.61	<.001

The first regression model presented in table 3 examined the relationship between emotional intelligence and teachers' involvement in environmental education. F(1, 326) = 92.33, p <.001, and an R2 of 0.223 indicated that the model was statistically significant. This suggests that about 22.3% of the variation in teachers' involvement in environmental education can be explained by emotional intelligence. A moderately positive relationship was indicated by the standardized beta coefficient for emotional intelligence, which was β = 0.472, p <.001. This demonstrates that educators who possess greater emotional intelligence are more likely to incorporate sustainability practices and content into their lessons, which is consistent with H1.

Table 4: Regression analysis for impact of emotional intelligence on environmental attitudes

Model	R	R square	Adjusted R square	Std. Error of the Estimate
1	0.513	0.263	0.261	0.438

Predictor	B	SE B	β	t	Sig.
(constant)	2.15	0.19		11.32	<.001
Emotional intelligence	0.48	0.05	0.513	10.66	<.001

The association between environmental attitudes and emotional intelligence was evaluated by the second regression model presented in table 4. With an R square of 0.263 and a F(1, 326) = 113.82, p <.001, the model was likewise statistically significant. This indicates that 26.3% of the variation in environmental attitudes can be explained by emotional intelligence. A strong positive relationship was indicated by the standardized beta coefficient, which was β = 0.513, p <.001. This supports the H2, which states that teachers who possess higher emotional intelligence also typically have more positive views about the environment, including a greater sense of ecological responsibility and concern.

Table 5: Regression analysis for the impact of emotional intelligence and environmental attitudes on engagement in environmental education

Model	R	R square	Adjusted R square	Std. Error of the Estimate
1	0.616	0.379	0.376	0.419

Predictor	B	SE B	β	t	Sig.
(constant)	1.12	0.20		5.60	<.001
Emotional intelligence	0.25	0.05	0.230	4.85	<.001
Environmental attitudes	0.47	0.06	0.441	8.97	<.001

The third regression model presented in table 5 examined the combined effect of emotional intelligence and environmental attitudes on educators' engagement in environmental education. The model was statistically significant, $F(2, 325) = 100.13$, $p < .001$, explaining 37.9% of the variance in engagement ($R^2 = 0.379$). Both predictors contributed significantly to the model, with emotional intelligence ($\beta = 0.230$, $p < .001$) and environmental attitudes ($\beta = 0.441$, $p < .001$) showing positive associations with engagement. Notably, the beta value for emotional intelligence decreased from 0.472 (in Model 1) to 0.230 when environmental attitudes were included, indicating a partial mediation effect. This finding supports both Hypotheses 3 and 4, suggesting that educators with higher emotional intelligence are more engaged in environmental education, in part because they hold stronger pro-environmental attitudes.

DISCUSSION

Using environmental attitudes as a mediating variable, this study investigated how emotional intelligence affected teachers' involvement in environmental education. The findings showed that engagement and environmental attitudes are significantly predicted by emotional intelligence, and that this relationship is partially mediated by environmental attitudes. These results are consistent with previous studies showing that emotional intelligence is fundamental in forming sustainability-related values and behaviors (Mayer, Salovey, & Caruso, 2004; Poškus, 2018). The emotional foundation of ecological concern is highlighted by the strong correlation found between emotional intelligence and environmental attitudes. According to earlier research, people with emotional intelligence are more likely to feel empathy and care about the environment, which can result in more positive environmental attitudes (Di Fabio & Kenny, 2016; Moisander, Markkula, & Eräranta, 2010). The role of emotional intelligence in influencing not only interpersonal behavior but also more general ethical and ecological orientations is reinforced by the possibility that emotional competencies like self-awareness and empathy could help people internalize a commitment to environmental values (Kals, Schumacher, & Montada, 1999).

Additionally, theoretical frameworks like the Value-Belief-Norm theory (Stern, 2000), which highlights how behavioral intentions are influenced by personal norms and attitudes toward the environment, are supported by the positive correlation between environmental attitudes and participation in environmental education. Strongly pro-environmental educators are more likely to actively engage in eco-friendly practices within their institutions, integrate sustainability themes into their lessons, and raise students' awareness of environmental issues (Dunlap et al., 2000; Tilbury,

1995).According to the study's partial mediation effect, emotional intelligence influences environmental education participation both directly and indirectly through environmental attitudes. When environmental attitudes are incorporated into the model, emotional intelligence's predictive power decreases, suggesting that emotional intelligence may encourage environmental concern, which in turn promotes sustainable teaching methods. This is consistent with research by Milfont, Wilson, and Diniz (2012) and Berenguer (2007), which contend that complex environmental behaviors are frequently shaped by the interaction of emotional and attitudinal factors. These results highlight how environmental education and emotional intelligence development must be combined in teacher preparation programs. Although cognitive knowledge about environmental issues is still crucial, how educators interact with sustainability in practice is ultimately determined by their emotional connection and internal motivation, which are shaped by both emotional intelligence and environmental attitudes. Teachers' emotional health and their ability to spearhead significant environmental projects may both benefit from training that fosters self-awareness, empathy, and responsible decision-making (Goleman, Bennett, & Barlow, 2012; UNESCO, 2017).

LIMITATIONS OF THE STUDY

Despite its contributions, the study is subject to certain limitations. First, the cross-sectional design restricts the ability to draw causal inferences about the relationships among emotional intelligence, environmental attitudes, and engagement. Longitudinal studies would be more suitable to establish temporal precedence and causal links. Second, data were collected through self-reported measures, which may be influenced by social desirability bias especially on sensitive topics such as environmental engagement. Third, the sample was limited to higher education teachers in Kerala, which may limit the generalizability of findings to other educational contexts or geographic regions. Lastly, while the study focused on the mediation effect of environmental attitudes, other potential mediators or moderators such as institutional support or environmental knowledge were not explored. Future research could address these gaps using broader samples and mixed-method approaches.

CONCLUSION

With environmental attitudes acting as a mediating factor, this study looked at how emotional intelligence affected teachers' involvement in environmental education. The findings showed that environmental attitudes and engagement are significantly predicted by emotional intelligence. Additionally, it was discovered that this relationship was partially mediated by environmental attitudes, indicating that teachers with higher emotional intelligence are more likely to participate in environmental education due to their stronger pro-environmental beliefs.

These results add to the increasing amount of research that highlights the socio-emotional aspects of teaching sustainability. According to the study, emotional intelligence is crucial for developing the environmental concern required for meaningful participation in environmental education, as well as for successful interpersonal interactions. The study emphasizes the significance of focusing on both emotional and attitudinal competencies in teacher preparation programs by identifying

environmental attitudes as a crucial pathway. The broader objectives of education for sustainable development can be advanced by this dual approach, which can strengthen educators' ability to motivate and carry out sustainability-focused learning.

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