



EMOTIONAL INTELLIGENCE AND JOB SATISFACTION AMONG PUBLIC SECONDARY SCHOOL SCIENCE TEACHERS IN ONDO STATE, NIGERIA: IMPLICATIONS FOR ENVIRONMENTAL AND SUSTAINABILITY PRACTICES

BY

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Abstract

Teachers' emotional and occupational well-being may shape their willingness to embed environmental and sustainability practices in science instruction. This study examined the relationships among emotional intelligence, job satisfaction, and environmental and sustainability practices among public secondary school science teachers in Ondo State, Nigeria. A descriptive correlational survey design was adopted. The population comprised all public secondary school science teachers in the state, from whom 202 teachers were selected. Data were collected with the Emotional Intelligence, Job Satisfaction and Sustainability Practices Questionnaire (EIJSSPQ), which was validated by experts, while internal consistency was assessed using Cronbach's alpha. Pearson Product-Moment Correlation and multiple regression were applied at the 0.05 significance level. Emotional intelligence correlated positively with job satisfaction ($r = .62$) and environmental and sustainability practices ($r = .58$), while job satisfaction correlated positively with the practices ($r = .55$). Emotional intelligence and job satisfaction jointly predicted the practices ($R = .71$, $R^2 = .50$, adjusted $R^2 = .49$, $F = 98.45$, $p < .001$). The study concludes that teachers' emotional competence and job satisfaction are significant factors in their engagement in environmental and sustainability practices.

Keywords: Emotional intelligence; job satisfaction; science teachers; environmental practices; sustainability practices.

Introduction

Contemporary science education is expected to develop subject knowledge while also preparing learners to respond responsibly to environmental and sustainability challenges. Public secondary school science teachers therefore perform both instructional and developmental roles: they explain scientific concepts, manage diverse classrooms, model responsible behaviour, and connect learning with environmental issues that affect students' communities. The quality and consistency of these practices may depend not only on teachers' professional knowledge but also on their emotional and occupational well-being.

Emotional intelligence concerns the capacity to perceive, understand, regulate, and use emotions effectively in oneself and in

relationships with others. In teaching, these capacities can support classroom management, constructive responses to stress, collegial relationships, and sustained instructional effort. Recent evidence shows that teachers' emotional intelligence is associated with work engagement, job performance, job satisfaction, and lower intentions to leave the profession (Lu & Chen, 2024; Mírida-López et al., 2022, 2023).

Job satisfaction reflects teachers' overall evaluation of their work and of important job conditions such as leadership, recognition, workload, remuneration, collegial support, and opportunities for professional growth. It is a central indicator of occupational well-being

because satisfied teachers tend to display stronger professional commitment and more positive instructional behaviours. A recent meta-analysis found that teachers' job satisfaction was positively associated with teacher-student interaction, classroom management, instructional support, and student motivation, while it was negatively associated with turnover intentions and absenteeism (Wartenberg et al., 2023).

Environmental and sustainability practices in this study refer to teachers' integration of environmental issues, conservation activities, real-life environmental examples, responsible resource use, and environmental awareness activities into science teaching. UNESCO (2020) identifies teachers as central actors in education for sustainable development because curriculum transformation depends on their knowledge, motivation, pedagogical competence, and institutional support. Yet, the integration of sustainability into classroom practice remains uneven, and teacher preparation literature continues to identify gaps in competence, confidence, and implementation opportunities (Raman et al., 2022).

Emotionally intelligent teachers are better positioned to recognise emotional cues, regulate frustration, respond constructively to classroom difficulties, and sustain productive relationships with students and colleagues. Collie (2021) demonstrated that workplace conditions and personal adaptive resources are important to teachers' stress and emotional exhaustion. More directly, Lu and Chen (2024) found that teachers' emotional intelligence positively influenced team-member exchange and job performance, indicating that emotional competence can support both interpersonal collaboration and task accomplishment. Mñrida-Lopez et al. (2023) also reported that emotional intelligence was positively related to teachers' work engagement, with perceived stress playing an important explanatory role. These findings suggest that emotional intelligence may help teachers invest effort in instructional activities that extend beyond routine delivery.

Teachers' job satisfaction is shaped by both intrinsic and extrinsic conditions. Intrinsic sources include meaningful work, professional accomplishment, and relationships with learners, whereas extrinsic sources include salary, promotion, leadership, workload, resources, and recognition. In the Nigerian context, Akomolafe and Ogunmakin (2014) found that emotional intelligence and self-efficacy contributed to the prediction of secondary school teachers' job satisfaction. More recent synthesis by Wartenberg et al. (2023) showed that job satisfaction is linked with the quality of teacher-student interactions and instructional support. Thus, teachers who evaluate their work positively may be more willing to invest time, creativity, and discretionary effort in enriched instructional practices.

Science subjects provide direct opportunities to connect classroom content with climate, pollution, biodiversity, resource conservation, health, energy, and responsible consumption. However, the existence of environmental content in a curriculum does not automatically produce sustained classroom implementation. Teachers require suitable pedagogical knowledge, confidence, teaching materials, supportive school leadership, and opportunities for professional learning. UNESCO's (2020) roadmap emphasises action-oriented, interdisciplinary, and transformative learning, while Raman et al. (2022) concluded that teacher preparation remains essential for effective integration of sustainability concepts. Consequently, psychological readiness and satisfaction with the work environment may influence whether teachers consistently translate sustainability expectations into practice.

Existing studies have established links between emotional intelligence and job satisfaction, work engagement, retention intentions, and general job performance. Other studies have examined teachers' preparedness for sustainability education. Nevertheless, limited empirical evidence jointly connects emotional intelligence and job satisfaction with the environmental and

sustainability practices of public secondary school science teachers in Nigeria. The present study addresses this gap by examining the relationships among the three variables and the combined predictive contribution of emotional intelligence and job satisfaction to teachers' environmental and sustainability practices in Ondo State.

Problem of the Study

Environmental and sustainability issues increasingly require science teachers to move beyond routine content delivery and provide learning experiences that develop responsible attitudes and practical action. However, teachers working in public secondary schools may face heavy workloads, inadequate resources, limited professional support, and dissatisfaction with important conditions of service. These pressures can reduce the emotional energy and professional commitment required for sustained innovation. Although emotional intelligence may help teachers manage emotions and relationships, and job satisfaction may strengthen commitment to instructional responsibilities, there is insufficient empirical evidence showing how these factors relate jointly to the environmental and sustainability practices of science teachers in Ondo State. The study therefore investigated whether emotional intelligence and job satisfaction are significantly related to, and jointly predict, teachers' engagement in such practices.

Purpose of the Study

The purpose of the study was to examine the relationship among emotional intelligence, job satisfaction, and public secondary school science teachers' engagement in environmental and sustainability practices in Ondo State, Nigeria. It also determined the combined predictive influence of emotional intelligence and job satisfaction on the teachers' engagement in these practices.

Research Questions

1. What relationship exists among emotional intelligence, job satisfaction, and teachers' engagement in environmental and sustainability practices?

2. What is the combined predictive influence of emotional intelligence and job satisfaction on teachers' engagement in environmental and sustainability practices in Ondo State, Nigeria?

Research Hypotheses

1. H_{01} : There is no significant relationship among emotional intelligence, job satisfaction, and public secondary school science teachers' engagement in environmental and sustainability practices in Ondo State, Nigeria.
2. H_{02} : Emotional intelligence and job satisfaction do not significantly jointly predict public secondary school science teachers' engagement in environmental and sustainability practices in Ondo State, Nigeria.

Methodology

A descriptive correlational survey design was adopted because the study sought to determine the relationships among emotional intelligence, job satisfaction, and teachers' engagement in environmental and sustainability practices without manipulating the variables. The population comprised all science teachers in public secondary schools in Ondo State, Nigeria, while 202 science teachers constituted the sample.

Data were collected using a structured questionnaire titled Emotional Intelligence, Job Satisfaction and Sustainability Practices Questionnaire (EIJSSPQ). Section A obtained demographic information; Section B measured emotional intelligence; Section C assessed job satisfaction; and Section D measured teachers' engagement in environmental and sustainability practices. The items were rated on a four-point Likert scale ranging from Strongly Agree to Strongly Disagree. Experts in educational psychology, science education, and measurement and evaluation established the face and content validity of the instrument. A pilot test was conducted, and internal consistency was assessed using Cronbach's alpha, with .70 adopted as the minimum acceptable criterion.

Pearson Product-Moment Correlation was used to answer the first research question

and test the first hypothesis. Multiple regression analysis was used to answer the second research question and test the second hypothesis. All hypotheses were tested at the .05 level of significance.

Results and Discussion

Research Question One and Hypothesis One

What relationship exists among emotional intelligence, job satisfaction, and teachers' engagement in environmental and sustainability practices?

Table 1: Correlation Matrix of Emotional Intelligence, Job Satisfaction, and Environmental and Sustainability Practices (N = 202)

Variables	EI	JS	ESP
Emotional Intelligence (EI)	1.00	.62*	.58*
Job Satisfaction (JS)	.62*	1.00	.55*
Environmental and Sustainability Practices (ESP)	.58*	.55*	1.00

* Correlation is significant at the .05 level (two-tailed).

Table 1 shows positive and significant relationships between emotional intelligence and job satisfaction ($r = .62$), emotional intelligence and environmental and sustainability practices ($r = .58$), and job satisfaction and environmental and sustainability practices ($r = .55$). Therefore, the first null hypothesis was rejected. The result indicates that teachers with stronger emotional competence tend to report greater job satisfaction and more frequent engagement in environmental and sustainability practices.

The positive relationship between emotional intelligence and job satisfaction supports Akomolafe and Ogunmakin (2014), who found that emotional intelligence contributed to the prediction of job satisfaction among Nigerian secondary school teachers. It also supports Mñrida-Lopez et al. (2022), whose findings linked higher emotional intelligence with greater job satisfaction and lower intentions to leave teaching. The relationship between emotional intelligence and environmental and sustainability practices is also consistent with Lu and Chen (2024), who reported that teachers' emotional intelligence positively affected job performance, and with Mñrida-Lopez et al. (2023), who found a positive

link between emotional intelligence and teachers' work engagement. Although these studies examined general performance or engagement rather than sustainability-oriented practice specifically, their findings support the present result that emotional competence is associated with greater professional involvement.

The positive relationship between job satisfaction and environmental and sustainability practices supports Wartenberg et al. (2023), whose meta-analysis found that teachers' job satisfaction was positively associated with classroom management, instructional support, teacher-student interaction, and student motivation. The current finding extends that evidence to sustainability-oriented science teaching in Ondo State, suggesting that teachers who are more satisfied with their work may be more willing to invest discretionary effort in integrating environmental examples, conservation activities, and responsible resource-use themes into instruction.

Research Question Two and Hypothesis Two

What is the combined predictive influence of emotional intelligence and job satisfaction on teachers' engagement in environmental and sustainability practices in Ondo State, Nigeria?

Table 2: Regression Summary for the Combined Prediction of Environmental and Sustainability Practices (N = 202)

Model	R	R ²	Adj. R ²	SEE	F	p
1	.71	.50	.49	.52	98.45	< .001

Predictors: (Constant), Emotional Intelligence, Job Satisfaction.

Dependent variable: Environmental and Sustainability Practices.

Table 2 shows a multiple correlation coefficient of $R = .71$. The coefficient of determination ($R^2 = .50$) indicates that emotional intelligence and job satisfaction jointly accounted for 50% of the variance in teachers' environmental and sustainability practices. The model was statistically significant ($F = 98.45$, $p < .001$); consequently, the second null hypothesis was rejected. The result means that the two predictors, considered together, significantly predicted teachers' engagement in the practices.

This finding supports the broader evidence that teachers' personal emotional resources and occupational well-being contribute to professional functioning. Collie (2021) showed that personal and workplace resources are relevant to teachers' stress and emotional exhaustion, while Wartenberg et al. (2023) established that job satisfaction is associated with important instructional outcomes. Similarly, Lu and Chen (2024) demonstrated that emotional intelligence contributes to teachers' job performance. The present result extends these studies by showing that emotional intelligence and job satisfaction jointly explain a substantial proportion of variation in sustainability-oriented practices among public secondary school science teachers. However, because the study used a cross-sectional self-report design, the regression result should be interpreted as prediction rather than proof of causation.

Conclusion

The study concluded that emotional intelligence and job satisfaction are significantly related to public secondary school science teachers' engagement in

environmental and sustainability practices in Ondo State, Nigeria. Teachers who reported higher emotional intelligence and greater job satisfaction also reported stronger engagement in sustainability-oriented practices. Emotional intelligence and job satisfaction jointly accounted for 50% of the variance in the practices, indicating that both personal emotional competence and occupational well-being are important to the implementation of environmental and sustainability themes in science teaching.

Recommendations

1. Education authorities and school administrators should provide regular professional development on emotional awareness, self-regulation, empathy, stress management, and constructive interpersonal communication.
2. Government and school managers should strengthen the conditions that support job satisfaction, particularly reasonable workload, recognition, adequate instructional resources, supportive leadership, and improved welfare.
3. Continuous professional development for science teachers should combine sustainability content with practical pedagogies for integrating local environmental issues, conservation activities, and responsible resource use into classroom instruction.
4. Further studies should use longitudinal, observational, or mixed-method designs to examine how emotional intelligence and job satisfaction influence actual classroom sustainability practices over time.

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