



MANAGING TEACHERS' EMOTIONAL INTELLIGENCE IN AN ERA OF  
ARTIFICIAL INTELLIGENCE FOR SUSTAINABLE SECONDARY EDUCATION  
GOALS ATTAINMENT IN RIVERS STATE

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### Abstract

This study focused on managing teachers' emotional intelligence in an era of artificial intelligence for sustainable secondary education goals attainment in Rivers State. Three research questions were postulated and three hypotheses tested in the study. Descriptive survey design was adopted in the study while the population of the study was 6,557 teachers in the 302 public senior secondary schools in Rivers State out of which 377 teachers were sampled for the study using simple random sampling technique. The instrument used for collection of data collection was a 15 item questionnaire titled "Managing Teachers Emotional Intelligence in an Era of Artificial Intelligence for Sustainable Secondary Education Goals Attainment Questionnaire" (MTEIEAISSEGAQ). The questionnaire was face and content validated by three Educational Management lecturers at University of Port Harcourt. The reliability of the questionnaire was estimated as 0.87 using Cronbach alpha statistics. There were 377 copies of questionnaire administered to the sampled teachers but only 354 copies representing 93.9% retrieval rate was recovered from 158 male and 196 female teachers. The research questions raised were answered using mean and standard deviation scores while the hypotheses were tested using z-test at 0.05 level of significance. The result of the study revealed that artificial intelligence impacted teachers' emotional intelligence by building better social skills and building better professional network. The teachers agreed that eroding of teachers' privacy and creation of digital divide were among the challenges associated with teachers' adoption of artificial intelligence on their emotional intelligence. Established AI training and collaborative teaching were identified ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment. Based on the findings of the study, it was recommended that teachers should be properly trained on the use of different AI tools.

**Keywords:** Artificial Intelligence, Emotional Intelligence, Secondary Education, Technology, Teachers

### Introduction

The arrival of artificial intelligence and the advancement of its various platforms have affected the educational sector just as it is felt in other sectors. This technology which has the capacity to function like human intelligence, is gradually influencing almost all activities that can be carried out by teachers and students in and outside the classroom. In fact, there are schools of



thought that believe that this emerging technology might replace human interaction, particularly in the classroom, and this has continued to raise concern about how AI will affect teachers' emotional intelligence as custodians of learning.

Several scholars, including Alexandrowicz (2024) alluded to the fact that teachers are responding to AI with a sense of curiosity, anxiety, excitement, worry, and being overwhelmed. As posited by Osegbue and Nnubia (2020) proper plans must be put in place to optimize the use of these resources for the achievement of educational goals and objectives and not to allow them to limit the teacher's emotional intelligence, which is important for effective classroom teaching and learning. This is because being able to "manage emotions belongs to one of the competencies needed by an individual to face the Fourth Industrial Revolution (4.0) and the rise of artificial intelligence in industrial processes is indeed able to alleviate human concerns about work and improve productivity" (Arifin, 2019:145). The teacher must therefore be emotionally prepared for this change in order not to be emotionally destabilized, which can affect educational goals and objectives in the short and long run.

On their part, Benaissa and Mammeri (2024) asserted that the ability to improve on teachers' cognitive and affective skills in this era of AI can lead to improved teaching in terms of methods adopted by the teacher, which will also affect the performance of the students. There are already several AI technologies that are replacing human interaction in and outside the school, and Bilquise *et al.*, (2022) stated that conversational technologies such as Chatbots are increasingly being used in several domains to substitute human agents in performing tasks, answering questions, giving advice, and providing social and emotional support. This can threaten the teachers' emotional intelligence if proper policies and procedures are not put in place. This is because teaching and learning cannot be entirely left for machines as physical contacts must be maintained for the overall development of the human mind.

Although studies such as that of Fu (2025) showed a strong and statistically significant relationship between psychological well-being, emotional intelligence, and AI literacy, with psychological well-being uniquely predicting about 61 % and emotional intelligence predicting 71 % of the variations in AI literacy. This means that teachers' emotional intelligence can guide the use of AI just as AI can influence the teacher's emotional intelligence and the teacher must be intelligent enough to be in charge of this process. Ohamobi *et al.*, (2025) pointed out that emotional intelligence is still crucial for developing strong leadership, moral leadership and great school cultures even when artificial Intelligence (AI) provides data-driven decision-



making and administrative efficiency. This notion must be promoted in this era of AI deployment in school administration.

Several empirical studies have explored the intersection of artificial intelligence (AI), emotional intelligence (EI), and educational outcomes, offering valuable insights into how these constructs influence teaching and learning effectiveness.

Al-Melweth *et al.*, (2023) conducted a cross-sectional study in Abha City, Saudi Arabia, to examine the role of AI technologies in enhancing education and fostering emotional intelligence for academic success. The study sampled 60 faculty members, with data collected through structured questionnaires. Correlation analyses were employed to assess relationships between variables. The results revealed strong positive correlations between self-assessed teaching competencies, indicating educators' comprehensive approach to their roles. Additionally, moderate positive correlations were observed between the frequency of AI usage and teaching competencies, suggesting AI's potential to enhance pedagogical skills. Emotional intelligence dimensions such as empathy and social skills also showed positive correlations with both teaching competencies and AI usage frequency.

Al-Shammari and Al-Enezi (2024) investigated the impact of AI on learning outcomes of pre-service social studies teachers in Kuwait. Utilizing a descriptive survey design, data were collected from 100 randomly selected female pre-service teachers at Kuwait University's College of Education using questionnaires. Analyses included simple linear regression, Pearson's correlation coefficient, Cronbach's alpha, and descriptive statistics. The findings indicated that the use of AI applications significantly enhanced participants' learning outcomes. The respondents demonstrated strong understanding and integration of AI into lesson planning, particularly through the use of Intelligent Tutoring Systems (ITS) and Smart Content. This highlighted their ability to leverage advanced AI tools to improve teaching strategies and student engagement.

Odunukwe *et al.*, (2024) conducted a descriptive survey to examine the relationship between emotional intelligence and performance of academic staff in federal universities in South East Nigeria. A total of 341 academic staff were sampled from a population of 13,163. Data analysis involved simple percentage analysis and linear regression. The results showed that self-awareness significantly and positively affected task performance ( $\beta = 0.049$ ,  $p = 0.003$ ). Self-regulation had a significant positive effect on adaptive performance ( $\beta = 0.047$ ,  $p = 0.000$ ), and



self-motivation significantly influenced contextual performance ( $\beta = 0.147$ ,  $p = 0.001$ ). While empathy showed no significant positive effect on counterproductive work behavior ( $\beta = 0.101$ ,  $p = 0.058$ ), relationship management positively influenced proactive work behavior ( $\beta = 0.164$ ,  $p = 0.001$ ), and social skills had a significant positive effect on creativity ( $\beta = 0.102$ ,  $p = 0.000$ ).

Akor *et al.*, (2024) examined emotional intelligence in curriculum development for teacher education. Using a descriptive survey design, data were collected from 80 lecturers out of a population of 120 in the Faculty of Education at Rivers State University, using disproportionate stratified random sampling. A 17-item questionnaire served as the data collection instrument, and analysis was performed using mean, standard deviation, and z-test. The findings indicated that teacher educators possessed knowledge and applied emotional intelligence in various areas of curriculum development. Additionally, gender was found to influence the application of emotional intelligence in curriculum development for teacher education.

Bereded *et al.*, (2025) explored the relationship between emotional intelligence, academic engagement, and academic achievement among first-year undergraduate students at Wollo University, Ethiopia. Using a correlational research design, 1,351 students were randomly selected. Descriptive statistics, Pearson's correlation, measurement model analysis, and structural equation modeling (SEM) were employed. The results demonstrated that trait EI was positively correlated with academic engagement ( $r = 0.350$ ) and academic achievement ( $r = 0.407$ ), while academic engagement was strongly correlated with academic achievement ( $r = 0.628$ ). The SEM analysis showed that trait EI had a direct positive effect on both academic engagement and academic achievement. Trait EI and academic engagement together accounted for 49.9% of the variance in academic achievement. Mediation analysis revealed that academic engagement partially mediated the relationship between EI and academic achievement ( $\beta = 0.220$ ,  $p = 0.000$ ), suggesting that EI's positive effect on academic achievement is amplified by increased academic engagement.

### **Aim and Objectives of the Study**

The aim of the study was the managing of teachers' emotional intelligence in an era of artificial intelligence for sustainable secondary education goals attainment in Rivers State. Specifically, the objectives of the study were to:

1. determine the impacts of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.



2. ascertain the challenge of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.
3. find out the ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

### **Research Questions**

The following research questions were raised to guide the study:

1. What are the impacts of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State?
2. What are the challenges of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State?
3. What are the ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State?

### **Hypotheses**

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant difference between the mean ratings of male and female respondents on the impacts of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.
2. There is no significant difference between the mean ratings of male and female respondents on the challenge of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.
3. There is no significant difference between the mean ratings of male and female respondents on the ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

### **Methodology**

The study employed descriptive survey design as it intends to examine a phenomenon that currently exists in the school through a data gathering process. The population of the study consisted of all the 6,557 teachers in the 302 public senior secondary schools in Rivers State.



A sample of 377 teachers were sampled for the study using the Taro Yamane minimum sample size estimation formula, while the respondents were selected using simple random sampling technique. The instrument used for data collection was a 15-item questionnaire named “Managing Teachers Emotional Intelligence in an Era of Artificial Intelligence for Sustainable Secondary Education Goals Attainment Questionnaire” (MTEIEAISSEGAQ). The questionnaire had two sections which were Section A for the collection of respondents’ biodata and Section B which contained the questionnaire items. The questions were structured on a four-point modified Likert scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with weighted values of 4, 3, 2 and 1 which was aggregated with an average value of 2.50 which was the criterion mean score for making decision. The instrument was face and content validated by three Educational Management lecturers at University of Port Harcourt while the reliability of the questionnaire was estimated as 0.87 using Cronbach alpha statistics. There were 377 copies of questionnaire administered to the sampled teachers but only 354 copies representing 93.9% retrieval rate was recovered from 158 male and 196 female teachers. The research questions raised were answered using mean and standard deviation scores while the hypotheses were tested using z-test at 0.05 level of significance.

**Results**

**Research Question One:** What are the impacts of artificial intelligence on teachers’ emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State?

**Table 1: Mean and Standard Deviation Scores on the Impacts of Artificial Intelligence on Teachers’ Emotional Intelligence for Sustainable Secondary Education Goals Attainment in Rivers State**

S/No	Items	Male Respondents n=158		Female Respondents n=196		Mean Set	
		Mean $\bar{X}_1$	SD	Mean $\bar{X}_2$	SD	$\bar{X}$	Decision
1	Building of social skills for better interaction with school stakeholders	2.70	0.64	2.84	0.62	2.77	Agree
2	Teachers are becoming more empathic to the need of colleagues	2.47	0.81	2.44	0.85	2.46	Disagree



3	Learners' needs are better analyzed and addressed by the teacher	2.75	0.61	2.80	0.63	2.78	Agree
4	There is improvement in the psychosocial wellbeing of teachers who engage with AI	2.43	0.83	2.41	0.88	2.42	Disagree
5	Teachers using AI build a better professional network on the job	2.77	0.60	2.76	0.65	2.77	Agree
<b>Average</b>		<b>2.62</b>	<b>0.70</b>	<b>2.65</b>	<b>0.73</b>	<b>2.64</b>	<b>Agree</b>

Table 1 showed that the teachers agreed that artificial intelligence impacted their emotional intelligence by building better social skills, better analysis of learners' needs, and building better professional network but they disagreed that teachers become more empathic, nor was there improvement of teachers' psychosocial wellbeing as a result of artificial intelligence emergence.

**Research Question Two:** What are the challenges of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State?

**Table 2: Mean and Standard Deviation Scores on the Challenge of Artificial Intelligence on Teachers' Emotional Intelligence for Sustainable Secondary Education Goals Attainment in Rivers State**

S/No	Items	Male Respondents n=158		Female Respondents n=196		Mean Set	
		Mean $\bar{X}_1$	SD	Mean $\bar{X}_2$	SD	X $\bar{X}$	Decision
6	Privacy of the teacher can be eroded	2.80	0.58	2.78	0.64	2.79	Agree
7	The use of AI can create a digital divide making it difficult to interact	2.85	0.55	2.81	0.62	2.83	Agree



	with all school personnel						
8	Teachers lose touch with the physical state of wellbeing of colleagues	2.91	0.55	2.85	0.60	2.88	Agree
9	Overreliance on AI limits the teachers critical thinking ability	2.81	0.57	2.79	0.63	2.80	Agree
10	The teacher is unable to fairly respond to the need of all learners	2.41	0.85	2.44	0.87	2.43	Disagree
	<b>Average</b>	<b>2.76</b>	<b>0.62</b>	<b>2.73</b>	<b>0.67</b>	<b>2.75</b>	<b>Agree</b>

Table 2 pointed out that the teachers agreed that eroding of teachers' privacy, creation of digital divide, losing touch with the physical wellbeing of colleagues, reduction of teacher's critical thinking and lack of fairness in responding to learners' needs were the challenges associated with teachers' adoption of artificial intelligence on their emotional intelligence.

**Research Question Three:** What are the ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State?

**Table 3: Mean and Standard Deviation Scores on the Ways of Managing the Effects of Artificial Intelligence on Teachers' Emotional Intelligence for Sustainable Secondary Education Goals Attainment in Rivers State**

S/No	Items	Male Respondents n=158		Female Respondents n=196		Mean Set	
		Mean $\bar{X}_1$	SD	Mean $\bar{X}_2$	SD	X $\bar{X}$	Decision
11	Teachers need to be trained on responsible use of AI	2.82	0.56	2.94	0.56	2.88	Agree
12	Collaborative teaching should be practiced as a way of	2.78	0.58	2.82	0.61	2.80	Agree



	checkmating teachers emotions							
13	Teachers should develop self-management skills	2.80	0.59	2.83	0.66	2.82	Agree	
14	Policies should be instituted by schools on data privacy	2.95	0.51	2.92	0.57	2.94	Agree	
15	Social activities should be encouraged by schools to promote regular physical contact	2.72	0.63	2.70	0.65	2.71	Agree	
	<b>Average</b>	<b>2.81</b>	<b>0.57</b>	<b>2.84</b>	<b>0.61</b>	<b>2.83</b>	<b>Agree</b>	

Table 3 established that training, collaborative teaching, development of self-management skills, enactment of institutional policies and institutionalizing social activities were ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment.

### Test of Hypotheses

**Hypotheses One:** There is no significant difference between the mean ratings of male and female respondents on the impacts of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

**Table 4: z-test Analysis of no Significant Difference Between the Mean Ratings of Male and Female Respondents on the Impacts of Artificial Intelligence on Teachers' Emotional Intelligence for Sustainable Secondary Education Goals Attainment in Rivers State**

Variable	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Male Respondents	158	2.62	0.70	352	0.39	1.96	0.05	Retained
Female Respondents	196	2.65	0.73					

Table 4 showed that at a z-cal. value of 0.39 which was less than the value of z-crit. of 1.96, the null hypothesis was retained and this means that there was no significant difference between



the mean ratings of male and female respondents on the impacts of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

**Hypotheses Two:** There is no significant difference between the mean ratings of male and female respondents on the challenge of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

**Table 5: z-test Analysis of no Significant Difference Between the Mean Ratings of Male and Female Respondents on the Challenge of Artificial Intelligence on Teachers' Emotional Intelligence for Sustainable Secondary Education Goals Attainment in Rivers State**

Variable	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Male Respondents	158	2.76	0.62	352	0.44	1.96	0.05	Retained
Female Respondents	196	2.73	0.67					

Table 5 indicated that at a z-cal. value of 0.44 which was less than the value of z-crit. of 1.96, the null hypothesis was retained and this implied that there was no significant difference between the mean ratings of male and female respondents on the challenge of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

**Hypotheses Three:** There is no significant difference between the mean ratings of male and female respondents on the ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

**Table 6: z-test Analysis of no Significant Difference Between the Mean Ratings of Male and Female Respondents on the Ways of Managing the Effects of Artificial Intelligence on Teachers' Emotional Intelligence for Sustainable Secondary Education Goals Attainment in Rivers State**

Variable	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Male Respondents	158	2.81	0.57	352	0.48	1.96	0.05	Retained
Female Respondents	196	2.84	0.61					



Table 6 indicated that at a z-cal. value of 0.39 which was less than the value of z-crit. of 1.96, the null hypothesis was retained and this means that there was no significant difference between the mean ratings of male and female respondents on the ways of managing the effects of artificial intelligence on teachers' emotional intelligence for Sustainable Secondary Education Goals Attainment in Rivers State.

### **Discussion of Findings**

The findings from the study showed that the male and female respondents expressed similar views regarding how AI could influence various aspects of teaching and interpersonal relations within the educational setting. One of the most prominent concerns identified is the possibility that AI could compromise teachers' privacy. The respondents acknowledged that the increased digitization and automation of educational processes might expose personal or sensitive information, diminishing the boundary between private and professional life of the teachers. The respondents also recognized that AI systems might inadvertently create barriers to effective communication among school personnel. There was a clear sentiment that reliance on digital tools could make interactions with colleagues less personal or more fragmented, limiting meaningful engagement. There was also the worry about the potential for teachers to lose touch with the physical and emotional wellbeing of other staff and students. As more tasks and communications shift to virtual platforms, teachers might become less attuned to the subtle, non-verbal experiences that are often critical for understanding the state of mind and overall wellbeing of other staff and students. The teachers also pointed out from their responses that they felt that an overdependence on AI systems could reduce opportunities for teachers to exercise critical thinking and professional judgment, as decision-making processes might increasingly be shaped or influenced by this technology.

Despite these apprehensions, most respondents did not perceive AI as an obstacle to addressing the diverse needs of learners fairly. There appeared to be a collective confidence that, while AI poses certain interpersonal and professional risks, it does not fundamentally hinder a teacher's capacity to respond equitably to students in the classroom. This is supported by Al-Shammari and Al-Enezi (2024), whose findings indicated that the use of AI applications significantly enhanced participants' learning outcomes. Specifically, the respondents demonstrated a strong understanding and integration of AI into lesson planning, particularly through Intelligent Tutoring Systems (ITS) and Smart Content. This highlights the potential of AI to improve



teaching strategies and student engagement, suggesting that teachers can effectively leverage these tools to cater to diverse learning needs.

There was also a strong support among respondents for equipping teachers with the necessary skills to use AI responsibly. The respondents emphasized the importance of continuous training and professional development to ensure that educators remain competent and informed users of emerging technologies. Al-Melweth *et al.*, (2023) support this, as their results revealed strong positive correlations between self-assessed teaching competencies, indicating educators' comprehensive approach to their roles. Furthermore, moderate positive correlations were observed between the frequency of AI usage and teaching competencies, suggesting AI's potential to enhance pedagogical skills. This underscores the importance of teachers developing their competencies to effectively integrate AI into their teaching practices.

In addition to technical training, there was a widespread endorsement of collaborative teaching practices. The teachers viewed collaboration not only as a means of enhancing instructional quality but also as a valuable tool for supporting teachers' emotional wellbeing and preventing professional isolation. The respondents emphasized the importance of teachers developing self-management skills, such as emotional regulation and time management, to navigate the demands of AI-integrated teaching environments effectively. Odunukwe *et al.*, (2024) found that self-regulation had a significant positive effect on adaptive performance, and relationship management positively influenced proactive work behavior. Akor *et al.*, (2024) also indicated that teacher educators possessed knowledge and applied emotional intelligence in various areas of curriculum development, with gender influencing this application. These findings highlight the importance of emotional intelligence and self-management skills in teachers' ability to adapt to and effectively utilize AI in educational settings. Bereded *et al.*, (2025) further support this, demonstrating that trait EI was positively correlated with academic engagement and achievement, with academic engagement partially mediating the relationship between EI and academic achievement.

Furthermore, the need for institutional regulations was underscored through strong advocacy for clear policies on data privacy. The respondents also recognized that formal guidelines are essential to protect sensitive information and ensure ethical AI use in schools. There was a shared recognition of the value of maintaining regular physical interactions within the school community. Encouraging social activities and face-to-face engagement was seen as crucial to preserving the interpersonal bonds that are often strained by digital communication. These



strategies collectively reflect a forward-looking approach, with respondents emphasizing the balance between embracing technological advancements and sustaining the human connections that underpin effective teaching and collaboration.

### **Conclusion**

The male and female respondents did not differ in their opinion that AI is affecting the emotional intelligence of the teachers. The physical interaction of teachers and students have been hindered by these emerging technologies making it difficult for teachers to show the right level of empathy on the job. However, challenges such as lack of proper knowledge of the strength and weaknesses of AI has escalated this problem and this calls for robust AI training for teachers in these schools.

### **Recommendations**

The recommendations of this study based on its findings are as follows:

1. Teachers need to be trained on the different AI tools and platforms that are available for the implementation of different educational activities that can help bridge the gap between the teacher and students in terms of managing staff-student emotional needs.
2. School activities need to be properly planned such that staff and students have time for physical interaction either in the form of social gathering, sport activities and other recreational activities that can provide for proper staff-student bonding as this is important for meeting secondary education goals and objectives.
3. The government need to carry out regular school performance evaluation and assessment to identified some of the gains and pains that the advent of AI is creating within the school system as this is necessary to provide timely interventions where necessary.

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