

EXPLORING ARTIFICIAL INTELLIGENCE ROLES IN PLANNING AND SUPPORTING EMOTIONALLY INTELLIGENT TEACHING IN ADULT EDUCATION SETTING IN DUTSIN-MA LGA, KATSINA STATE

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Abstract

This study, titled "exploring artificial intelligence roles in planning and supporting emotionally intelligent teaching in adult education Settings in Dutsin-ma LGA, Katsina State", aims to explore how AI can be utilized to enhance emotionally intelligent teaching practices in adult education settings, to examine the challenges and opportunities associated with the integration of AI into emotionally intelligent teaching practices in adult education, and to assess the impact of AI on the effectiveness of emotionally intelligent teaching practices in adult education settings in Dutsin-Ma LGA. A descriptive survey research design was adopted, with a population of 51 respondents comprising 46 teachers and 5 supervisors from 11 adult education centers in Dutsin-ma LGA. Given the manageable population size, the entire population was used as the sample. A researcher-developed instrument, the Exploring the Role of AI in Planning and Supporting Emotionally Intelligent Teaching Practices in Adult Education Settings Questionnaire (ERAIPSEITPAESQ), was used to collect data with reliability index of 0.06. Following validation suggestions, the instrument was redesigned into segments for more effective data analysis. The study's research questions were analyzed using mean and standard deviation, with a cutoff mean of 2.50 for acceptance. The findings revealed that AI significantly supports emotionally intelligent teaching by improving emotional connections with learners, providing timely feedback, and fostering supportive learning environments. However, challenges such as technical difficulties, insufficient resources, and inadequate training were highlighted. The study recommends addressing these barriers by providing educators with sufficient training and resources to maximize the benefits of AI in adult education settings.

Keywords: Artificial intelligence, emotionally intelligent teaching, adult education

Introduction

In recent years, the integration of Artificial Intelligence (AI) in educational systems has sparked significant interest, especially in enhancing teaching practices. AI's capabilities in analyzing vast amounts of data, predicting trends, and personalizing learning experiences have opened new pathways for educators, particularly in adult education settings. In this context, emotionally intelligent teaching, which involves understanding and managing emotions in the classroom, has become an essential component of effective pedagogy. Emotional intelligence (EI) in education helps in fostering a positive learning environment, encouraging student engagement, and addressing the unique challenges faced by adult learners. Emotionally intelligent teaching practices have gained prominence due to their pivotal role in addressing the emotional and psychological needs of learners, especially in adult education settings. Adult learners often face diverse challenges, such as balancing education with work or family responsibilities, re-entering education after long breaks, or dealing with social stigmas. Therefore,

educators who are emotionally intelligent can better understand and respond to these challenges, creating supportive environments that enhance learning outcomes.

Emotionally intelligent teaching practices have been increasingly recognized as essential in addressing emotional and psychological needs in adult education (Pekaar et al., 2021). Educators with high emotional intelligence foster better learning environments and improve student outcomes by understanding emotions and creating adaptive responses (Cherniss, 2020). AI's ability to support emotionally intelligent practices has been demonstrated in various educational settings. AI technologies, such as emotion detection tools, provide real-time insights into student emotions and facilitate timely interventions (Zhang & Aslan, 2021). This technology also helps educators to personalize learning experiences, which is particularly important in adult education settings where learners' backgrounds and needs are diverse (Tegmark, 2022). In adult education, emotional intelligence is a critical factor for promoting engagement, especially when dealing with learners re-entering education or managing external responsibilities (Boyatzis, 2020). AI can aid in creating personalized learning paths that align with both the cognitive and emotional needs of adult learners, thus supporting more effective teaching strategies (Sharma et al., 2021).

Studies have shown that emotionally intelligent educators are more effective in managing classroom dynamics, resolving conflicts, and fostering a culture of empathy and inclusivity (Goleman, 2020). In adult education, this approach is crucial as learners are more likely to have varied experiences, expectations, and emotional states compared to younger students. By employing emotionally intelligent teaching strategies, educators can enhance motivation, promote resilience, and improve overall academic performance. Furthermore, AI presents opportunities for supporting emotionally intelligent teaching practices by providing tools for real-time emotional monitoring, personalized feedback, and tailored support systems (Luckin, 2022). AI-powered applications can help teachers gauge student emotional responses, allowing for more targeted and effective interventions. In adult education settings, this can be particularly useful for identifying and addressing emotional barriers to learning, ensuring that adult learners remain engaged and supported throughout their educational journey.

In summary, emotionally intelligent teaching practices are integral to the success of adult education, and AI offers innovative solutions to enhance these practices. The synergy between AI and emotional intelligence in teaching holds the potential to revolutionize adult education, particularly in regions like Dutsin-ma LGA, where access to advanced educational tools can improve the learning experience for adult students.

Literature Review

Emotionally intelligent teaching refers to the ability of educators to recognize, understand, and manage their own emotions and those of their students to foster a productive learning environment. According to Goleman (2020), emotional intelligence (EI) in teaching is a set of competencies that include self-awareness, self-regulation, empathy, and social skills, which are critical for managing classroom dynamics and enhancing student engagement. Emotionally intelligent teaching practices are essential in addressing the emotional and psychological needs of learners, especially in adult education, where students may face unique challenges such as balancing work, family, and education (Pekaar et al., 2021). These practices encourage teachers to be more empathetic, patient, and responsive to the individual emotional states of learners, leading to improved classroom interactions and better learning outcomes (Boyatzis, 2020). In fact, research shows that emotionally intelligent educators can help reduce student anxiety, increase motivation, and foster a positive learning environment, which ultimately enhances both academic performance and personal growth (Cherniss, 2020).

Artificial Intelligence (AI) in education refers to the use of computer systems to mimic human intelligence in automating administrative tasks, personalizing learning experiences, and providing intelligent tutoring systems. AI has been increasingly adopted in education to improve teaching and learning processes. Current applications include AI-powered learning management systems (LMS), adaptive learning platforms, chatbots for student support, and AI-based grading systems (Zawacki-Richter et al., 2019). One of AI's most promising potentials in education is its ability to provide personalized learning. AI can analyze individual student data, predict learning outcomes, and adjust teaching strategies to meet specific needs (Luckin, 2022). Moreover, AI can automate repetitive administrative tasks such as grading, allowing teachers to focus more on student interactions (Tegmark, 2022). However, AI in education also faces limitations, including the lack of emotional intelligence in AI systems, ethical concerns about data privacy, and the risk of reinforcing biases in algorithms (Holmes et al., 2021).

Intersection between AI and Emotional Intelligence

The intersection of AI and emotional intelligence (EI) presents an emerging area of research and development. AI systems can process vast amounts of data to make decisions, they generally lack the nuanced understanding of human emotions that is central to EI. However, advancements in affective computing a branch of AI focused on recognizing and responding to human emotions are helping to bridge this gap (Zhang & Aslan, 2021). AI's ability to recognize emotions through facial expression analysis, tone of voice, and text sentiment can be applied to support emotionally intelligent teaching practices. For example, AI can monitor student emotions in real time and provide feedback to educators, allowing them to adjust their teaching strategies accordingly (Sharma et al., 2021). AI's role in supporting emotionally intelligent teaching is particularly beneficial in adult education settings, where emotional factors play a significant role in learning success (Tegmark, 2022). However, there is still limited research on how AI can effectively replicate the complex emotional intelligence of human educators, which remains a challenge for its full adoption in emotionally intelligent teaching practices (Luckin, 2022).

Adult Education in Nigeria: Context, Challenges and Opportunities

Adult education in Nigeria plays a vital role in addressing the educational needs of a significant portion of the population, particularly those who were unable to complete formal schooling. The National Commission for Mass Literacy, Adult, and Non-Formal Education (NMEC) has been at the forefront of promoting adult education through various programmes aimed at increasing literacy and vocational skills among adults (NMEC, 2021). However, adult education in Nigeria faces several challenges. These include limited access to resources, inadequate funding, and lack of trained educators who can address the specific emotional and psychological needs of adult learners (UNESCO, 2022). Additionally, adult learners often juggle multiple responsibilities such as work and family, which can create barriers to consistent attendance and engagement (Okeke & Ofoha, 2020).

Despite these challenges, there are opportunities for improving adult education in Nigeria through the integration of technology, including AI. AI can be utilized to provide personalized learning experiences, flexible scheduling, and real-time emotional support, all of which can help address the unique challenges faced by adult learners (Boyatzis, 2020). Moreover, the Nigerian government's efforts to expand access to education through digital platforms present an opportunity for enhancing adult education delivery (UNESCO, 2022).

Theoretical Framework: Social Cognitive Theory by Bandura (1986)

Social Cognitive Theory (SCT), proposed by Albert Bandura in 1986, emphasizes the dynamic interaction between personal, environmental, and behavioral factors in learning and human development. The theory argues that learning occurs in a social context and can happen through

observation, imitation, and modeling, making it especially relevant to emotionally intelligent teaching practices. SCT highlights the importance of self-regulation, self-efficacy, and the reciprocal influence between learners and their environment, which are crucial aspects of adult education and emotionally intelligent teaching. In the context of the research topic, "Exploring the Role of AI in Planning and Supporting Emotionally Intelligent Teaching Practices in Adult Education Settings in Dutsin-Ma LGA, Katsina State," Social Cognitive Theory can be applied in several ways to underpin the study.

i. AI as a Tool for Enhancing Self-Regulation and Self-Efficacy

Bandura's SCT emphasizes the role of self-regulation and self-efficacy in learning. Adult learners often need to regulate their learning due to external responsibilities like work and family. Emotionally intelligent teaching practices supported by AI can provide personalized learning experiences that promote self-regulation and increase learners' self-efficacy. For instance, AI systems can track learners' progress, offer personalized feedback, and provide tailored learning strategies based on their emotional states. These capabilities align with the SCT concept of helping learners monitor and adapt their behaviors to achieve learning outcomes. Moreover, AI can foster a sense of self-efficacy by providing immediate, individualized feedback that acknowledges learners' efforts and achievements, thereby increasing their confidence in their ability to succeed in educational tasks. In emotionally intelligent teaching, the ability to provide emotional support through AI-driven adaptive learning environments can further reinforce the learners' belief in their capacity to overcome challenges.

ii. Modeling and Observational Learning Supported by AI

According to SCT, observational learning—learning by watching others—is a critical process. AI can enhance this aspect of learning by offering digital platforms where learners observe model behaviors or teaching methods that reflect emotional intelligence. AI-driven systems can simulate real-life classroom scenarios, where learners can witness how emotionally intelligent teaching fosters positive interactions. For adult learners, such modeling can provide insights into how they can manage their own emotional responses in learning settings, which helps to shape their behaviors. For example, an AI system could incorporate simulations where educators or learners demonstrate effective emotional responses in educational contexts. These scenarios can be replayed and adapted based on the needs of the learners, helping them to learn by example, consistent with Bandura's principles of vicarious reinforcement.

iii. Reciprocal Determinism: Interaction Between Learners, Teachers, and AI Environment

Bandura's concept of reciprocal determinism—the idea that personal, behavioral, and environmental factors mutually influence each other—can be seen in how AI interacts with emotionally intelligent teaching practices. The personal factors (learners' emotions and thoughts), behavioral factors (their learning actions and emotional responses), and the environment (the AI-supported teaching platform) work together to shape learning outcomes. In adult education, AI systems can be designed to respond dynamically to learners' emotional states by adjusting teaching methods or providing emotional support in real-time. For instance, an AI system can analyze data on a learner's emotional state (e.g., frustration or motivation) through facial recognition or sentiment analysis, and the system can then recommend appropriate actions or adjustments in teaching strategies. This interaction illustrates reciprocal determinism, where AI influences the learner's behavior, and the learner's emotional responses feed back into the AI system's decision-making process, shaping the learning environment.

ii. Facilitating Emotional Intelligence Development through AI-Driven Feedback

Emotionally intelligent teaching practices emphasize the importance of understanding and managing emotions, both for teachers and learners. SCT highlights the role of feedback in reinforcing or discouraging behaviors. In this research, AI can support emotionally intelligent teaching by providing continuous, data-driven feedback that helps both educators and learners manage emotions effectively. For example, AI systems can monitor a classroom's emotional climate and provide insights to teachers on how to adjust their approach to meet learners' emotional needs. Additionally, AI could provide learners with feedback on their emotional responses during learning activities, helping them to develop better self-awareness and emotional regulation, aligning with SCT's focus on feedback loops.

iii. Empowering Educators with AI for Emotionally Intelligent Teaching

From the perspective of social learning for teachers, AI can be used as a training tool to model emotionally intelligent teaching practices. Educators can observe AI-driven examples of how to manage

emotionally charged classroom situations, interact empathetically with learners, and use emotional cues to adjust teaching strategies. By supporting the emotional and social competencies of educators, AI can reinforce positive teaching behaviors that align with emotionally intelligent practices.

Social Cognitive Theory provides a robust framework for understanding how AI can be used to enhance emotionally intelligent teaching practices in adult education settings. SCT's focus on self-regulation, self-efficacy, modeling, and reciprocal determinism aligns well with the potential of AI to support these practices. AI can help educators and learners alike manage emotions, promote personalized learning, and provide real-time feedback, thereby creating a learning environment that fosters emotional intelligence. By applying Bandura's principles of SCT, this study can explore how AI-driven tools influence not only learning behaviors but also the emotional and cognitive processes critical to adult education success.

Statement of the Problem

Despite the growing integration of Artificial Intelligence (AI) into various sectors of education, there is still limited research on AI's role in supporting emotionally intelligent teaching practices, especially in adult education settings. Emotionally intelligent teaching is essential for addressing the emotional and psychological needs of adult learners, who often face unique challenges such as balancing work, family, and education. However, while emotionally intelligent practices are recognized as vital for improving learning outcomes, the potential of AI to enhance these practices remains underexplored. The Nigerian government and other stakeholders, including educational institutions and non-governmental organizations (NGOs), have made significant efforts to improve the quality of adult education through various initiatives. In regions like Dutsin-ma Local Government Area, Katsina State, adult education programs struggle with insufficient technological resources, making it difficult to fully explore AI's potential in enhancing teaching quality (UNESCO, 2022).

If this gap in research and application persists, it will likely hinder the quality of education provided to adult learners. The absence of AI-driven tools that could help educators assess and respond to students' emotional needs in real time will limit the effectiveness of teaching practices. AI's ability to analyze emotional cues provides personalized learning experiences, and offer real-time support can significantly enhance emotionally intelligent teaching. However, without substantial research and investment into AI-driven solutions, educators may continue to rely on traditional methods that are less adaptive to the emotional complexities of adult learners. The Nigerian government and other stakeholders need to prioritize the integration of AI in emotionally intelligent teaching practices. Without addressing this issue, the adult education sector may lag in adapting to modern, more effective teaching strategies, ultimately hampering efforts to improve educational quality and inclusivity.

Research Questions

The following research questions were asked to guide the study:

1. To what extent does AI utilization help in planning and supporting emotionally intelligent teaching practices in adult education settings in Dutsin-Ma LGA?
2. What are the challenges and opportunities in integrating AI into emotionally intelligent teaching practices in adult education in Dutsin-Ma LGA?
3. To what extent does the use of AI influence the effectiveness of emotionally intelligent teaching in adult education settings in Dutsin-Ma LGA.?

Objectives of the Study

The main objective of this study is to explore the role of AI in planning and supporting emotionally intelligent teaching practices in adult education setting in Dutsin-ma LGA, Katsina State. The specific objectives to:

1. Explore how AI can be utilized to enhance emotionally intelligent teaching practices in adult education settings in Dutsin-ma LGA.
2. Examine the challenges and opportunities associated with the integration of AI into emotionally intelligent teaching practices in adult education in Dutsin-Ma LGA.
3. Assess the impact of AI on the effectiveness of emotionally intelligent teaching practices in adult education settings in Dutsin-ma LGA.

Methodology

For this study, the descriptive survey research design was adopted. The population was 51 respondents (teachers) adult education centers in Dutsin-Ma LGA of katsina state. It is made up of 11 adult education centers across the local government area with 46 teachers and 5 supervisors making the total number of 51 respondents. However, because of size of the population, 51 were still used as the sample. Exploring the role of AI in planning and supporting emotionally intelligent teaching practices in adult education setting questionnaire (ERAIPSEITPAESQ) was developed by the researcher and 15 questions items to address the 3 research questions. The instrument vetted and a 4 point Likert Scale ranging from Strongly Agree (SA) 4, Agree (A) 3, Disagree (D) 2, Strongly and Disagree (SD) 1 scales of measurement items was used to answer the questions. The review focused on item clarity, reliance to the content coverage and face validity of the instrument, with a validity index of 0.06. The validation suggestion, the instrument was re-designed to comprise segments based on the data needed to help and analyze the data collected. The research questions were answered using standard deviation, and a mean of 2.50 and above was taken as the cutoff point Agree and below 2.50 was disagree.

Results and Discussions

Research Question One: To what extent does AI utilization help in planning and supporting emotionally intelligent teaching practices in adult education settings in Dutsin-Ma LGA?

Table 1: Mean and Standard Deviation on the extent AI utilization help in planning and supporting emotionally intelligent teaching practices in adult education settings in Dutsin-ma LGA.

S/N	Item Statements	Mean	SD	Remark
1.	AI has significantly improved the planning of emotionally intelligent teaching practices in adult education settings.	2.72	.65	Agree
2.	AI tools help me in understanding the emotional needs of adult learners during the planning of lessons	2.69	.64	Agree
3.	AI applications have made it easier to adapt teaching methods to the emotional states of adult learners.	2.59	.61	Agree
4.	I use AI-based platforms to monitor and assess the emotional progress of adult learners in my class.	2.89	.70	Agree
5.	AI has enabled personalized lesson planning that takes into account the emotional intelligence levels of adult learners.	2.52	.59	Agree
Cluster Mean Scores		2.68	0.64	Agree

N= 51

Data in Table 1 above show that item 1, 2, 3, 4, and 5 had mean scores of 2.50 above. It implies that all the items are Respondent agree and not accepted since they received mean scores above the cutoff point of 2.50. It also implies that respondents agreed that AI has significantly improved the planning of emotionally intelligent teaching practices in adult education settings, that AI tools help me in understanding the emotional needs of adult learners during the planning of lessons, that AI applications have made it easier to adapt teaching methods to the emotional states of adult learners, that I use AI-based platforms to monitor and assess the emotional progress of adult learners in my class and that AI

has enabled personalized lesson planning that takes into account the emotional intelligence levels of adult learners. However, from the responses of the respondents one can find that AI utilization help in planning and supporting emotionally intelligent teaching practices in adult education settings in Dutsin-ma LGA to a high extent as indicated by the average mean score of 2.68.

Research Question Two: What are the challenges and opportunities in integrating AI into emotionally intelligent teaching practices in adult education within Dutsin-Ma LGA?

Table 2: Mean and Standard Deviation on the challenges and opportunities in integrating AI into emotionally intelligent teaching practices in adult education within Dutsin-ma LGA.

S/N	Item Statements	Mean	SD	Remark
6	I face technical difficulties when trying to integrate AI into my teaching practices.	2.67	.63	Agree
7	There are insufficient resources (e.g., funding, infrastructure) for adopting AI in emotionally intelligent teaching.	2.81	.65	Agree
8	AI provides opportunities to better understand and respond to the emotions of adult learners	2.76	.66	Agree
9	AI-based tools offer opportunities to create more engaging, emotionally supportive learning environments for adult learners.	2.84	.69	Agree
10	The main challenge to AI adoption in emotionally intelligent teaching is the lack of training for educators on its use.	2.92	.71	Agree
Cluster Mean Scores		2.80	0.67	Agree

N=51

Data in Table 2 above show that item 6, 7, 8, 9, and 10 had mean scores of 2.50 above. It implies that all the items are accepted since they received mean scores above the cutoff point of 2.50. It also implies that respondents agreed that they face technical difficulties when trying to integrate AI into my teaching practices, that there are insufficient resources (e.g., funding, infrastructure) for adopting AI in emotionally intelligent teaching, that AI provides opportunities to better understand and respond to the emotions of adult learners, that AI-based tools offer opportunities to create more engaging, emotionally supportive learning environments for adult learners, and that the main challenge to AI adoption in emotionally intelligent teaching is the lack of training for educators on its use. However, from the responses of the respondents one can find that there are both challenges and opportunities in integrating AI into emotionally intelligent teaching practices in adult education within Dutsin-ma LGA to a high extent as indicated by the average mean score of 2.80.

Research Question Three: To what extent does the use of AI influence the effectiveness of emotionally intelligent teaching in adult education settings?

Table 3: Mean and Standard Deviation on extent the use of AI influence the effectiveness of emotionally intelligent teaching in adult education settings.

S/N	Item Statements	Mean	SD	Remark
11	AI has made emotionally intelligent teaching practices more effective in adult education.	2.87	.69	Agree
12	AI tools provide timely feedback that helps me manage my emotional interactions with learners.	2.58	.61	Agree

13	The use of AI has improved the emotional connection between me and my adult learners.	2.84	.68	Agree
14	AI has helped in fostering a supportive and emotionally aware learning environment in adult education.	2.92	.71	Agree
15	AI enhances my ability to respond to adult learners' emotional needs, leading to more effective teaching outcomes.	2.86	.69	Agree
Cluster Mean Scores		2.81	0.68	Agree

N=51

Data in Table 3 above show that item 11, 12, 13, 14, and 15 had mean scores of 2.50 above. It implies that all the items are accepted since they received mean scores above the cutoff point of 2.50. It also implies that respondents agreed that AI has made emotionally intelligent teaching practices more effective in adult education, that AI tools provide timely feedback that helps them manage their emotional interactions with learners, that the use of AI has improved the emotional connection between them and their adult learners, that AI has helped in fostering a supportive and emotionally aware learning environment in adult education, and that AI enhances their ability to respond to adult learners' emotional needs, leading to more effective teaching outcomes. However, from the responses of the respondents one can find that the use of AI influence the effectiveness of emotionally intelligent teaching in adult education settings to a high extent as indicated by the average mean score of 2.81.

Discussion of Findings

The finding of this study revealed that the respondents, with an average mean score of 2.68, largely agree on the positive impact of AI in planning and supporting emotionally intelligent teaching practices in adult education settings in Dutsin-ma LGA. All items received mean scores above the threshold of 2.50, indicating strong agreement that AI significantly enhances teaching practices by addressing emotional needs, adapting methods to emotional states, and enabling personalized lesson planning based on emotional intelligence levels. These findings align with research that highlights AI's capacity to support adaptive learning and emotional intelligence in education. For instance, Johnson (2023) points out that AI-driven tool can enhance teachers' ability to assess and respond to the emotional states of learners, fostering a more supportive learning environment. Similarly, Whelan (2022) emphasizes how AI-based platforms facilitate personalized and emotionally responsive lesson planning, which is critical for adult learners who bring diverse emotional needs to the classroom.

Research question two highlight both challenges and opportunities in integrating AI into emotionally intelligent teaching practices in adult education within Dutsin-ma LGA, with all item mean scores above 2.50 and a cluster mean of 2.80. Respondents acknowledged facing technical difficulties and a lack of resources such as funding and infrastructure. They also identified the lack of training for educators as a significant barrier to AI adoption. Despite these challenges, AI presents opportunities to better understand and respond to the emotional needs of adult learners and to create more engaging, emotionally supportive learning environments. These findings align with Xie, Wu, and Zhang (2021), who emphasized that while technical and infrastructural challenges hinder AI integration, it's potential to enhance emotional intelligence in education remains vast. Similarly, Chen and Li (2022) highlighted the importance of educator training to fully realize AI's benefits in emotionally intelligent teaching.

The findings from Research question three highlight the significant impact of AI on emotionally intelligent teaching in adult education, with a cluster mean score of 2.81. Respondents agreed that AI enhances teaching effectiveness by improving emotional connections with learners and creating emotionally aware environments. AI tools provide timely feedback, helping educators manage

emotional interactions, and allow educators to better address the emotional needs of learners, leading to improved outcomes. These findings are supported by Wang and Huang (2022), who noted that AI's ability to personalize feedback and foster emotional engagement is vital and Goleman (2022), who stressed that emotional intelligence is crucial for effective teaching in modern education.

Conclusion

In conclusion, this study highlights the significant role AI plays in enhancing emotionally intelligent teaching practices in adult education, particularly by improving emotional connections with learners, providing timely feedback, and fostering supportive learning environments. Despite these benefits, challenges such as technical difficulties, insufficient resources, and lack of training hinder AI's full potential. Addressing these barriers through targeted training, infrastructure enhancement, increased funding, curriculum integration, and continuous evaluation will ensure that AI's advantages are maximized, leading to more effective and emotionally responsive teaching outcomes in adult education settings.

Recommendations

Based on the findings, the following five recommendations were made:

1. Institutions should invest in comprehensive training programs for adult educators on the use of AI tools.
2. Educational policymakers should develop curricula and teaching resources that incorporate AI-driven methods to enhance emotionally intelligent teaching.
3. Continuous assessment of AI's impact on emotionally intelligent teaching should be implemented. This can include feedback systems from teachers and students, as well as AI performance metrics.

References

- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice-Hall.
- Boyatzis, R. E. (2020). The impact of emotional intelligence on adult learning: Implications for education and leadership development. *Journal of Management Development*, 39(4), 453-465.
- Cherniss, C. (2020). Emotional intelligence and its role in effective teaching practices: A comprehensive review. *Educational Psychology Review*, 32(1), 1-22.
- Chen, M., & Li, T. (2022). AI integration in emotionally intelligent teaching: The role of educator training. *International Journal of AI and Education*, 19(1), 123-136.
- Goleman, D. (2022). Emotional intelligence in the classroom: Adapting teaching for the 21st century. *Educational Leadership Review*, 14(1), 89-101.
- Goleman, D. (2020). *Emotional Intelligence: Why It Can Matter More Than IQ*. Bantam Books.
- Holmes, W., Bialik, M., & Fadel, C. (2021). *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*. Center for Curriculum Redesign.
- Johnson, A. (2023). AI in education: Enhancing emotional intelligence through technology. *Educational Technology Journal*, 15(4), 245-258.
- Luckin, R. (2022). *AI for Educators: Learning with Artificial Intelligence*. Routledge.
- NMEC (2021). *National Commission for Mass Literacy, Adult, and Non-Formal Education: Annual Report 2021*. Nigerian Ministry of Education.
- Okeke, B. S., & Ofoha, D. (2020). Challenges and opportunities in adult education in Nigeria. *Adult Education Journal of Nigeria*, 26(1), 112-128.
- Pekaar, K. A., Bakker, A. B., van der Linden, D., & Born, M. P. (2021). Emotion regulation and emotional intelligence in adult education: Theories and practical implications. *Learning and Instruction*, 75, 101487.
- Sharma, P., Dey, S., & Ghosh, K. (2021). AI-enhanced learning: The future of emotional intelligence in education. *Computers & Education*, 169, 104211.
- Tegmark, M. (2022). *Artificial Intelligence and the Future of Education: Building Emotionally Intelligent Systems for Learning*. Oxford University Press.

- UNESCO (2022). The Role of Technology in Advancing Adult Education in Sub-Saharan Africa. UNESCO Education Report.
- Whelan, P. (2022). Personalized learning and emotional intelligence in adult education. *International Journal of AI in Education*, 10(2), 123-134.
- Wang, X., & Huang, Y. (2022). AI and emotional intelligence in adult education: Opportunities and challenges. *International Journal of AI in Education*, 15(2), 145-157.
- Xie, Y., Wu, Q., & Zhang, J. (2021). Barriers and enablers of AI in education: Emotional intelligence perspective. *Journal of Educational Technology*, 18(4), 205-218.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators?. *International Journal of Educational Technology in Higher Education*, 16(1), 1-27.
- Zhang, Z., & Aslan, I. (2021). AI in education: A new frontier for emotional intelligence and adaptive learning. *Journal of Artificial Intelligence in Education*, 31(2), 203-226.