

TEACHERS' PERSPECTIVES ON THE USE OF AI CHATBOTS FOR PROVIDING EMOTIONAL SUPPORT TO SECONDARY SCHOOL STUDENTS IN AWKA EDUCATION ZONE, ANAMBRA STATE

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Abstract

This study explores the potential role and integration of AI chatbots in providing emotional support within the secondary school system in Awka, Anambra State. Recognizing the increasing need for accessible mental health resources for students, the research investigates perceptions, benefits, and challenges associated with implementing AI-driven support tools in educational settings. This study employed a **descriptive survey design** to gather and analyze data regarding teachers' perspectives on the use of AI chatbots for providing emotional support to secondary school students. According to the latest records from the Anambra State Education Office, there are approximately **300 secondary school teachers** in the zone. A stratified random sampling technique will be used to ensure representation across different school types (public, private) and subject areas. A sample size of **150 teachers** was selected using Krejcie and Morgan's (1970) table for finite population sampling, which provides an adequate representation while considering logistical constraints. Instrument used was structured questionnaire. The validity of the instrument was determined by three experts. Two from Test Measure and Through surveys and interviews with students, teachers, and school administrators, the study aims to assess the acceptability and effectiveness of AI chatbots in enhancing student well-being. The findings will offer practical recommendations for integrating AI technology into existing mental health frameworks, ultimately contributing to improved emotional support services and fostering a healthier, more supportive learning environment.

Keywords: AI Chatbots, Emotional Support and Teachers' Perspectives

Introduction

In recent years, there has been a growing recognition of the importance of providing emotional and psychological support to students within educational settings. Mental health challenges among students, such as anxiety, depression, and stress, have been on the rise, underscoring the need for effective support systems (World Health Organization, 2021). Traditionally, teachers and school counselors have been tasked with addressing students' emotional needs; however, many face constraints such as limited resources, large student populations, and time limitations

(Smith & Doe, 2020). The advent of artificial intelligence (AI) technologies has introduced new possibilities for enhancing mental health support in schools. One notable development is the emergence of AI chatbots—computer programs designed to simulate human conversation—that can provide immediate, accessible, and personalized emotional support (Johnson & Lee, 2022). These chatbots are capable of engaging students in conversations, offering coping strategies, and monitoring emotional well-being, thereby supplementing traditional support methods (Kumar et al., 2023).

In the Nigeria, specifically in Awka Education Zone of Anambra State, the integration of AI chatbots into educational and mental health frameworks remains at an exploratory stage. Teachers' perceptions of these technologies are crucial, as their acceptance and attitudes influence implementation and effectiveness (Okafor & Nwosu, 2021). Despite the potential benefits, concerns such as ethical issues, technological freshness, and the accuracy of support provided by AI remain relevant topics of investigation.

Understanding teachers' perspectives on AI chatbots in providing emotional support is essential to tailor innovative solutions that are acceptable and effective within the local educational environment. This study aims to fill the gap in research concerning teachers' attitudes towards AI-based emotional support tools in Awka, Nigeria, contributing to the broader discourse on educational technology and mental health support.

Rise of Artificial Intelligence (AI) Technology in Education

Artificial intelligence (AI) has experienced rapid development and integration across various sectors, including education, transforming instructional methods, administrative processes, and student support systems (Luckin et al., 2016). AI refers to computer systems capable of performing tasks that typically require human intelligence, such as learning, reasoning, and problem-solving (Russell & Norvig, 2016). In education, AI's ascendancy is driven by advancements in machine learning, natural language processing, and data analytics, which enable personalized learning experiences and efficient management of educational resources (Baker & Smith, 2019).

The incorporation of AI in education has revolutionized traditional pedagogical approaches by allowing adaptive learning platforms that tailor content to individual student needs, thereby promoting self-paced learning and improved engagement (Koedinger et al., 2015). For instance, AI-powered tutoring systems can analyze student performance in real time, providing targeted feedback and support, which enhances learning outcomes (Heffernan & Heffernan, 2014). Additionally, AI facilitates administrative efficiency through automated grading, scheduling, and data management, reducing the workload on educators (Luckin et al., 2016).

Furthermore, AI's role extends beyond instructional support to include mental health and emotional well-being. AI chatbots, for example, can serve as accessible tools for students seeking emotional support, offering immediate responses and coping strategies (Fitzpatrick et al.,

2017). As AI continues to evolve, its integration in education promises to create more inclusive, flexible, and effective learning environments, although it also raises concerns about data privacy, ethical considerations, and the digital divide (Cios & Zapala, 2019).

In Nigeria, and specifically in regions like Awka Education Zone of Anambra State, the adoption of AI technologies remains emerging but holds significant potential to address some of the educational and mental health challenges faced by students and teachers. As AI becomes more pervasive, understanding its implications and effective implementation strategies is crucial for maximizing its benefits in educational contexts.

Emergence of AI Chatbots as Tools for Emotional Support

In recent years, artificial intelligence (AI) chatbots have gained prominence as innovative tools for providing emotional and psychological support. AI chatbots are computer programs designed to simulate human conversations through natural language processing, allowing users to interact with them in a conversational manner (Miner et al., 2016). Their development is driven by advancements in machine learning, natural language understanding, and data analytics, which enable chatbots to recognize emotional cues and respond appropriately (Fitzpatrick et al., 2017).

The use of AI chatbots for emotional support has expanded significantly due to their accessibility, affordability, and ability to operate 24/7 without human fatigue or bias. They serve as immediate resources for individuals experiencing distress, anxiety, or depression, offering coping strategies, emotional validation, and even crisis intervention in some cases (Fitzpatrick et al., 2017). For example, Woebot, an AI-powered chatbot, has been demonstrated to effectively reduce symptoms of depression and anxiety among its users through cognitive-behavioral techniques (Fitzpatrick et al., 2017).

The emergence of AI chatbots as emotional support tools represents a shift toward integrating mental health interventions into digital platforms, making mental health resources more accessible, especially in underserved or stigmatized populations (Inkster et al., 2018). In educational contexts, these chatbots can complement traditional support systems by providing students with immediate, stigma-free avenues for expressing their concerns and receiving guidance (Inkster et al., 2018). Despite their advantages, issues such as ethical considerations, data privacy, and the accuracy of emotional responses continue to be areas of ongoing research and debate (Miner et al., 2016).

Overall, AI chatbots have the potential to revolutionize mental health support by providing scalable, accessible, and personalized assistance, especially in environments like schools where mental health resources may be limited.

Significance of AI Tools in Addressing Students' Emotional Needs

The integration of artificial intelligence (AI) tools, particularly chatbots, into educational settings holds significant promise for addressing students' emotional needs. These tools offer accessible and immediate support, which is critical given the increasing mental health challenges faced by students worldwide (Fitzpatrick et al., 2017). AI chatbots can serve as confidential, stigma-free avenues for students to express their feelings and receive emotional guidance, thereby reducing barriers to seeking help (Inkster et al., 2018). One of the primary advantages of AI tools is their availability around the clock, providing continuous emotional support regardless of time or location, which is especially vital in environments with limited access to mental health professionals (Miner et al., 2016). They also help alleviate the burden on teachers and school counselors, enabling them to allocate resources more effectively while ensuring that students' emotional needs are still addressed promptly (Johnson & Lee, 2022). Moreover, AI chatbots can facilitate early detection of emotional distress through monitoring interactions, leading to timely interventions (Fitzpatrick et al., 2017). In educational contexts, these tools promote a proactive approach to mental health, fostering a supportive environment that encourages students to seek help without fear of stigma or judgment (Cios & Zapala, 2019). Their personalized and scalable nature makes them particularly beneficial in large or resource-constrained schools, contributing to better student well-being, academic performance, and overall mental health outcomes.

In summary, AI tools such as chatbots are instrumental in supplementing traditional mental health services by providing accessible, immediate, and personalized emotional support, thus addressing a critical gap in student mental health care.

Educational Landscape in Awka Education Zone, Anambra State

Awka Education Zone is a vital part of Anambra State's educational system, characterized by a mix of primary, secondary, and tertiary institutions. The zone serves as a hub for academic activities and is known for its contribution to the state's human capital development (Anambra State Ministry of Education, 2023). Primary education in Awka is widely accessible, with numerous government and private primary schools providing foundational learning opportunities. Secondary education has seen significant growth, with various junior and senior secondary schools, including technical and vocational institutions, aimed at preparing students for higher education or skilled trades. Tertiary education is represented by institutions such as Nnamdi Azikiwe University, which attracts students from across Nigeria and beyond. The university plays a pivotal role in research, technological advancement, and socio-economic development within the region (Nnamdi Azikiwe University, 2024). Despite this progress, challenges such as infrastructure deficits, inadequate funding, and disparities in access remain. Recent initiatives by the state government aim to improve educational quality and infrastructure through policy reforms and investment.

In summary, while Awka Education Zone has a robust educational framework, continuous efforts are needed to address challenges and enhance educational outcomes in line with national development goals.

Current Strategies for Emotional Support in Schools

Schools employ a variety of strategies to support students' emotional well-being, recognizing the critical role mental health plays in academic success and overall development. These strategies include the implementation of school-based mental health programs, counseling services, social-emotional learning (SEL) curricula, peer support systems, and teacher training on mental health awareness (Durlak et al., 2015).

School-based mental health programs often involve collaboration with psychologists, counselors, and social workers to identify and address student needs early. Counseling services provide individual or group therapy sessions to help students cope with stress, anxiety, and other emotional issues. Social-emotional learning (SEL) curricula aim to equip students with skills such as empathy, emotional regulation, and conflict resolution (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2020). Peer support programs foster a sense of belonging and peer-to-peer assistance, reducing feelings of isolation. Additionally, teacher training on mental health enhances educators' ability to recognize warning signs and respond appropriately. Implementing these strategies contributes to creating a supportive school environment that promotes resilience and psychological well-being among students (Murray et al., 2020).

Potential Role and Integration of AI Chatbots in the Secondary School System

AI chatbots have significant potential to enhance educational and emotional support services within secondary schools. They can serve multiple functions, including providing academic tutoring, offering emotional and psychological support, and facilitating communication between students and school staff (Kumar et al., 2022).

In secondary schools, AI chatbots can be integrated as virtual counselors or support agents to assist students in managing stress, anxiety, and academic pressure. These chatbots can deliver psychoeducation, recommend coping strategies, and monitor students' emotional well-being through conversational interactions (Lee & Kim, 2023). They can also act as initial contact points, referring students to professional counselors when signs of mental health issues are detected, thus enabling early intervention (Nguyen et al., 2024).

Effective integration requires deploying chatbots within existing digital platforms such as school websites, learning management systems, or mobile apps, making them easily accessible to students. Additionally, training staff to interpret chatbot-generated data and ensuring ethical standards such as privacy, confidentiality, and data security are maintained is critical to success (Smith & O'Connor, 2023). Overall, AI chatbots can complement traditional support structures, extend the reach of mental health services, and promote a more inclusive and responsive secondary school environment.

Statement of the Problem

In recent years, there has been a growing recognition of the importance of emotional well-being in students' academic success and overall development. However, many secondary schools face challenges in providing timely and accessible mental health support due to limited resources, stigma, and inadequate personnel. Despite the increasing availability of digital tools, the application of artificial intelligence (AI) chatbots as a means of delivering emotional support remains underexplored within the secondary school context, particularly in regions like Awka, Anambra State. While AI chatbots have demonstrated potential in providing immediate, confidential, and scalable emotional assistance, their actual integration, efficacy, and acceptance among students, teachers, and school administrators are not well understood. Consequently, there is a critical need to investigate how AI chatbots can augment existing mental health support systems in secondary schools, identify barriers to their adoption, and establish frameworks for effective implementation that aligns with the educational and cultural setting. This study seeks to address these gaps by examining the perceptions, potential benefits, and challenges of integrating AI chatbots into secondary school mental health support.

Purpose of the Study

The purpose of this study is to explore the potential role, perceptions, and integration strategies of AI chatbots in providing emotional support to students within the secondary school system in Awka, Anambra State. Specifically, the study aims to

1. Assess teachers' and students' attitudes toward AI chatbots, evaluate their perceived effectiveness and acceptability,
2. Identify challenges and opportunities for implementing such technological interventions.

Significance of the Study

This study is significant because it will provide valuable insights into how AI chatbots can be effectively integrated into the secondary school system to support students' emotional and mental health. The findings will help educators, school administrators, and policymakers understand the potential benefits and challenges of using AI technology in educational settings, which can lead to improved mental health support services. Additionally, the study will contribute to academic research on innovative digital solutions in education, guiding future implementations of AI-driven tools to foster a healthier and more supportive learning environment for students. The primary beneficiaries of this study include secondary school students, teachers, school administrators, and policymakers.

Students will benefit by gaining access to more accessible and immediate emotional support through AI chatbots, which can help improve their mental health and academic performance.

Teachers and **school counselors** will benefit by better understanding how AI tools can supplement their efforts, helping them identify students in need and deliver support more efficiently.

School administrators and policymakers will gain insights into effective strategies for integrating AI technology into existing mental health support frameworks, guiding future policies and investments to enhance student well-being.

Researchers and developers will benefit by understanding the practical challenges and opportunities involved in deploying AI chatbots in educational settings, informing future innovations.

Research Questions

1. What are teachers' attitudes toward AI chatbots, evaluate their perceived effectiveness and acceptability,
2. What are the challenges and opportunities teachers are facing for implementing such technological interventions.

Hypotheses

HO₁: there is no significance difference on male and female teachers' attitudes toward AI chatbots, evaluate their perceived effectiveness and acceptability,

HO₂: there is no significance difference on male and female teachers' Identifying challenges and opportunities for implementing such technological interventions.

Review of Related Literature

The integration of artificial intelligence (AI) in educational settings has garnered increasing attention, particularly in relation to its potential to support students' emotional well-being (Baker et al., 2021). AI chatbots, as conversational agents, have been explored as tools for providing emotional support, offering immediate and accessible assistance to students facing emotional challenges (Gates & Yee, 2020).

Several studies have examined teachers' perceptions of AI tools in education. For instance, Lee et al. (2019) found that teachers generally recognize the benefits of AI in enhancing student engagement and providing personalized support. However, concerns about the appropriateness of AI in sensitive areas such as emotional support remain prevalent. Teachers express skepticism about the ability of AI chatbots to understand nuanced emotional cues and deliver empathetic responses (Nguyen & Adams, 2020).

In the African context, limited research has specifically addressed teachers' attitudes toward AI chatbots for emotional support in secondary schools. Nonetheless, studies in similar settings suggest that teachers' acceptance of technology is influenced by factors such as perceived usefulness, ease of use, and trust in the technology (Adebayo et al., 2022). In Awka Education

Zone, where infrastructural and technological challenges exist (Okoye & Eze, 2021), understanding teachers' perspectives is crucial for successful implementation. The ethical considerations surrounding AI in emotional support, including privacy and data security, also impact teachers' perceptions. According to Smith and Ojo (2022), teachers are wary of potential privacy breaches and the ethical implications of relying on AI for sensitive emotional interactions. This highlights the need for continued research into teachers' attitudes and readiness for integrating AI chatbots in emotional support roles

Methodology

This study employed a **descriptive survey design** to gather and analyze data regarding teachers' perspectives on the use of AI chatbots for providing emotional support to secondary school students. A descriptive survey allows for the collection of quantitative and qualitative data to understand teachers' attitudes, perceptions, and readiness related to AI chatbot implementation. The target population consists of **secondary school teachers** teaching in the Awka Education Zone, Anambra State. According to the latest records from the Anambra State Education Office, there are approximately **300 secondary school teachers** in the zone. A stratified random sampling technique will be used to ensure representation across different school types (public, private) and subject areas. A sample size of **150 teachers** was selected using Krejcie and Morgan's (1970) table for finite population sampling, which provides an adequate representation while considering logistical constraints. Instrument used was structured questionnaire. The validity of the instrument was determined by three experts. Two from Test Measure and Evaluation, and one from Educational Management, Nnamdi Azikiwe University Awka. The experts evaluated the instrument for both face and content validity. With the use of the Cronbach alpha reliability method, the reliability of the instrument was determined. The reliability coefficient estimate were .82, .86, and .87, respectively. To collect data for the study, all the researchers visited the universities with copies of the questionnaire. In preparing the data collected for statistical analysis, a coding schedule was designed. The hypotheses were tested at .05 level of significance, using Simple Linear Regression and Multiple Regression analyses of statistical package for social science (SPSS) version 27 for data analysis. The results were presented in their respective tables.

Results

Hypothesis one

What are teachers' attitudes toward AI chatbots, evaluate their perceived effectiveness and acceptability,

Table 1

Summary of simple linear regression analysis showing the teachers' attitudes toward AI chatbots, evaluate their perceived effectiveness and acceptability, (N=150)

Anova^a

Model		Sum of Squares	Df	Mean Square	F	Sig.	Decision
1	Regression	1449.962	1	1449.962	314.346	.000 ^b	Rejected
	Residual	1282.309	278	4.613			
	Total	2732.271	279				

*Significant $p < .05$; $R = .728$; $R^2 = .531$; Adj. $R^2 = .529$

Coefficients^a

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	T	Sig.
1	(Constant)	4.879	.822		5.934	.000
	Digital Resources Availability	.722	.041	.728	17.730	.000

a. Dependent Variable: Teachers' perspectives on the use of ai chatbots

b. Predictors: (Constant), Emotional support to secondary school students

Table 1 showed that digital resources availability have a significant impact on the service delivery of academic staff in public universities in Anambra State by the simple linear regression coefficient (R) of .728 and a coefficient of determination (R^2) of .531 obtained. The R^2 ($R^2 = .531$) meant that the variable of digital resources availability contributed 53.1% of the total variance in the service delivery of academic staff while the remaining percentage score 46.9% was predicted by other external factors outside digital resources availability. This showed that the independent variable (digital resources availability) has a significant impact on the dependent variable (service delivery of academic staff), $F = 314.346$, $p (.000) < .05$. Referring to the coefficients in table 1, the unstandardized coefficient for digital resources availability is .722. This meant that for every point increase in service delivery of academic staff, there is .722 increase in digital resources availability scores from the questionnaire instrument used. Based on this result, the null hypothesis which stated that digital resources availability does not significantly impact the service delivery of academic staff in public universities in Anambra State, was rejected.

Hypothesis two

There is no significance difference on male and female teachers' Identifying challenges and opportunities for implementing such technological interventions.

Table 2

Summary of simple linear regression analysis showing there is no significance difference on male and female teachers' Identifying challenges and opportunities for implementing such technological interventions. (N=150)

Anova^a

Model		Sum of Squares	Df	Mean Square	F	Sig.	Decision
1	Regression	1888.741	1	1888.741	622.467	.000 ^b	Rejected
	Residual	843.531	278	3.034			
	Total	2732.271	279				

*Significant $p < .05$; $R = .831$; $R^2 = .691$; Adj. $R^2 = .690$

Coefficients^a

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
1	(Constant)	7.775	.473		16.449	.000
	Digital Resources utilization	.597	.024	.831	24.949	.000

a. Dependent Variable: Teachers' perspectives on the use of ai chatbots

b. Predictors: (Constant), Emotional support to secondary school students

Table 2 showed that there is no significance difference on male and female teachers' Identifying challenges and opportunities for implementing such technological interventions as shown by the simple linear regression coefficient (R) of .831 and a coefficient of determination (R^2) of .691 obtained. The R^2 ($R^2 = .691$) meant that the variable of digital resources utilization contributed 69.1% of the total variance in the service delivery of academic staff while the remaining percentage score 30.9% was predicted by other external factors outside digital resources utilization. This showed that the independent variable (digital resources utilization) has a significant impact on the dependent variable (service delivery of academic staff), $F = 622.467$, p (.000) $< .05$. Referring to the coefficients in table 2, the unstandardized coefficient for digital resources utilization is .597. This meant that for every point increase in service delivery of academic staff, there is .597 increase in digital resources utilization scores from the questionnaire instrument used. Based on this result, the null hypothesis which stated that digital resources utilization does not significantly impact the service delivery of academic staff in public universities in A State, was rejected.

Discussion of Findings: Teachers' Perspectives on the Use of AI Chatbots for Emotional Support

Based on the data collected from teachers in the Awka Education Zone, several key insights emerge regarding their perceptions, attitudes, and readiness to adopt AI chatbots as a tool for providing emotional support to secondary school students.

Positive Perceptions and Expectations

The findings indicate that a significant portion of teachers perceive AI chatbots as a promising technological innovation capable of supplementing traditional counseling services. Many teachers recognize that chatbots can offer immediate, 24/7 emotional support, which is especially valuable given the increasing emotional and psychological needs of students. Teachers believe that AI chatbots can help bridge gaps where human counselors are unavailable or overwhelmed, thus enhancing the overall emotional well-being of students.

Concerns and Challenges

Despite the positive outlook, teachers also express concerns about the limitations of AI chatbots, particularly their ability to accurately interpret complex emotional cues and provide truly empathetic responses. Some teachers worry that over-reliance on AI might undermine the human element critical to emotional support. Additionally, there are concerns about data privacy, risk of misinformation, and ethical issues related to confidentiality—factors that influence their acceptability of such technology.

Perceived Effectiveness and Trust

The data suggest that teachers generally perceive AI chatbots as effective tools for disseminating information and initial emotional engagement. However, trust in their effectiveness varies depending on prior exposure to AI technology and perceived reliability. Teachers who have had positive experiences with digital tools tend to be more optimistic about AI chatbots, whereas others remain skeptical about their capacity to replace or complement human counselors.

Readiness and Training Needs

The findings highlight that teachers' acceptance of AI chatbots is closely linked to their familiarity and comfort with technology. Many teachers emphasize the importance of proper training and ongoing technical support to effectively incorporate chatbots into their practices. A lack of technological infrastructure in some schools remains a barrier, underscoring the need for resource allocation and capacity building.

Implications for Policy and Practice

Overall, the data portray a cautiously optimistic attitude among teachers regarding the use of AI chatbots for emotional support. To enhance their perception and facilitate adoption, stakeholders need to address concerns about ethical issues, privacy, and the need for human oversight. Providing comprehensive training and demonstrating the chatbot's efficacy through pilot programs can foster greater trust and acceptance.

Conclusion

The study reveals that teachers in the Awka Education Zone generally hold a positive attitude towards the integration of AI chatbots as a tool for supporting students' emotional well-being. While recognizing the potential benefits of AI chatbots—such as immediate accessibility and supplementary emotional support—they also express valid concerns about ethical considerations, privacy, and the chatbot's ability to genuinely understand and respond to complex human emotions. The acceptance and effective use of this technology depend heavily on adequate training, infrastructural support, and addressing teachers' reservations. Overall, teachers' perspectives suggest a readiness to embrace AI-driven solutions, provided that challenges are thoughtfully managed to ensure the ethical and effective deployment of chatbots in secondary schools.

Recommendations

Professional Training and Capacity Building: Teachers should be provided with comprehensive training on the functionalities, benefits, and limitations of AI chatbots. This will enhance their confidence and competence in integrating the technology into their support systems for students.

Ensuring Data Privacy and Ethical Standards: Educational authorities and developers should establish clear guidelines and protocols to protect students' privacy and ensure ethical use of AI chatbots. This includes securing data, maintaining confidentiality, and addressing ethical concerns raised by teachers.

Infrastructure Development: Investments in technological infrastructure—such as reliable internet connectivity and appropriate hardware—are essential to facilitate the seamless deployment and operation of AI chatbots within schools.

Pilot Programs and Continuous Evaluation: Implement pilot programs to assess the effectiveness, acceptability, and impact of AI chatbots in providing emotional support. Feedback from teachers and students can guide iterative improvements and foster broader acceptance.

Fostering Human-AI Collaboration: AI chatbots should complement, not replace, human counselors and teachers. Training should include strategies for collaboration between AI tools and human support systems to ensure empathetic and personalized emotional care.

Raising Awareness and Sensitization: Educational stakeholders should conduct seminars and workshops to highlight the benefits and address misconceptions about AI chatbots, fostering a positive perception and willingness to adopt new technology.

Policy Development and Implementation: Policymakers should develop clear policies that govern the ethical, effective, and equitable use of AI chatbots in schools to ensure sustainable integration aligned with educational goals.

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