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Application of Artificial Intelligence (AI) to Student Personnel Management and Counselling in Public Secondary Schools in Cross River State, Nigeria

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Abstract

In the ever-changing realm of education, Artificial Intelligence (AI) is proving to be a game-changer, unlocking innovative opportunities. It is therefore, essential to investigate how these advancements can strengthen student support systems and improve overall outcomes. This paper examined the application of Artificial Intelligence (AI) to student personnel management and Counselling in public secondary schools in Cross River State, Nigeria. The study population included all principals from 297 public secondary schools across Cross River State. Census method was used to include all the principals in the study. Data were collected using a thirty six items structured instruments titled “Artificial Intelligence (AI), Student Personnel Management, and Student Counselling Questionnaire (AISPMSQC).” The instrument was validated by three experts in the Departments of Educational Management and Measurement and Evaluation. The instrument was structured in line with the modified 4- points Likert scale which provided four levels of opinion as: Very High (VH), High (H), Low (E), Very Low (VL), with values of 4, 3, 2 and 1 respectively. Cronbach’s Alpha was used to test the reliability of the instrument which gave reliability indexes of 0.81 and .87. Mean and standard deviation were used to answer the research questions with a criterion mean of 2.50. Questionnaire items with mean opinion scores below 2.50 denoted ‘Disagreed’ while 2.50 and above signified ‘Agreed’. The study concluded that the application of Artificial Intelligence (AI) significantly enhances student personnel management and counselling in public secondary schools in Cross River State. The findings emphasize the importance of integrating advanced technologies in counseling practices, offering practical insights for educators, policymakers, and stakeholders on leveraging AI to improve student support systems. It was recommended among others the Ministry of Education and school administrators should emphasize regular training and skill development for principals, counselors, and teachers. These initiatives should focus on equipping educators with the expertise needed to effectively adopt and apply AI tools in managing and supporting students.

Keywords: Artificial Intelligence, Students’, Students’ Personnel Management, Counselling, Secondary Schools.

Introduction

Across the globe, education is recognized as a vital factor for development, both in developed and developing nations. The progress of any country is intrinsically tied to the strength of its educational system, as no nation can advance without a solid foundation in education. Madukwe *et al.* (2024) ^[20] emphasize that education holds significant importance in contemporary

societies, serving as a vital means for generating, applying, and sharing knowledge, while also facilitating social transformation.

In recognition of this, the Nigerian Federal Government has identified education as a crucial tool for achieving national goals, as stated in the National Policy on Education (Federal Republic of Nigeria, 2014). Similarly, Osha *et al.* (2024) [26] emphasized that the goal of education in developing countries like Nigeria is to equip students with new skills, tacit knowledge, cultures, attitudes, behaviors and innovative ways of solving day to day problems in life.

In Nigeria, secondary education particularly, serves as the bridge between primary and tertiary education, preparing students with the knowledge and skills required for higher learning and career readiness. Additionally, it contributes to the economy by creating a skilled labor force, essential for national growth. The goals of secondary education include equipping students to contribute meaningfully to society by blending academic and practical knowledge. Etor *et al.* (2019) [9] note that by the time students complete secondary school, they should have gained the skills necessary for higher education or entering the workforce. As Obona *et al.* (2023) [23] emphasizes, the success of educational institutions heavily relies on the effective management of resources.

Students are an essential resource within the school system and play a pivotal role in the successful achievement of educational objectives. Managing student personnel involves a wide range of activities focused on enhancing their overall well-being and development in the school environment. This includes overseeing services such as counseling, discipline, extracurricular programs, and academic support, all of which contribute to their academic progress and personal growth (Hirt & Amey, 2020) [13]. Additionally, it involves addressing both academic and non-academic needs, including admissions, orientation, health services, discipline, and student welfare (Nwakpa, 2015; Ugomma *et al.*, 2014) [22]. As noted by Difoni *et al.* (2024) [7], accomplishing educational objectives is unattainable without the efficient management of a key resource: student personnel.

Student personnel management fosters comprehensive student development by addressing their academic, emotional, and social needs. This approach emphasizes the holistic well-being of students, ensuring that their growth encompasses not only academic achievement but also emotional strength and social skills. Principals play a vital role in overseeing counseling services, extracurricular programs, and welfare initiatives to ensure that students receive the necessary support for their personal development (Hirt & Amey, 2020) [14]. Initiatives designed to enhance leadership abilities and social competencies, along with robust welfare services and clear disciplinary frameworks, contribute to creating a secure and nurturing learning environment (Nwakpa, 2015; Ugomma *et al.*, 2014; Obona *et al.*, 2023) [22]. Effective student personnel management is essential for cultivating an environment where students can thrive both academically and personally, preparing them to make valuable contributions to society.

Counseling is a critical responsibility within the school system, playing a pivotal role in supporting students' overall development. In this context, student counseling refers to the professional guidance and assistance offered to help students navigate challenges related to academics, personal growth, social interactions, and career planning. It aims to promote emotional well-being, enhance academic performance, and support informed career decision-making. Additionally, counseling services address mental health concerns, foster positive interpersonal relationships, and equip students with

effective coping strategies, all within a nurturing and supportive environment to help them realize their full potential. Oyebisi *et al.* (2024) [27] highlight that Artificial Intelligence (AI) is becoming a revolutionary tool, creating new possibilities for improving school counseling and guidance services. They note that while traditional counseling approaches have proven effective, they often fall short in addressing the increasingly complex and diverse needs of students promptly and efficiently. Advances in AI enable schools to offer tailored, data-driven support, ensuring that students' individual academic, emotional, and social requirements are met with greater accuracy and attention.

Management according to Osha *et al.* (2021) [25] is vital for creating a well-organized and supportive environment that fosters student learning, enhances teacher performance, and ensures the achievement of educational goals. Managing students in the school system is a complex task, often fraught with challenges that impede the realization of educational objectives. According to Oyebisi *et al.* (2024) [27], the diverse challenges students face today, including academic pressures and mental health concerns, necessitate the implementation of robust and effective counseling services. Strengthening these services is critical to providing students with the support they need to succeed both academically and personally. Ugwoke and Ugwoke (2021) [32] revealed that many public secondary schools struggle with resource management due to insufficient funding, poor allocation, and a lack of transparency. These issues result in inadequate infrastructure, a shortage of teaching materials, and limited support for extracurricular activities, all of which contribute to a subpar learning environment. Similarly, Nwakpa (2015) [22] points out that ineffective student personnel management, characterized by inadequate support services and weak disciplinary measures, negatively affects students' academic performance and overall development. Osha *et al.* (2024) [26] noted that secondary schools face similar problems including limited funding, inadequately trained teachers, and leadership inefficiencies that disrupt administrative processes. These ongoing challenges highlight the need for innovative management strategies to improve the efficiency of public secondary schools.

This situation is particularly evident in public secondary schools in Calabar Education Zone, Cross River State, Nigeria, where many institutions fail to meet the goals of the National Policy on Education, which seeks to equip students with self-reliance skills post-graduation. Issues such as mismanagement, corruption, inadequate teaching and learning facilities, overcrowded classrooms, limited office space, and high staff turnover further complicate the situation. Additionally, the growing student population, insufficient infrastructure, and frequent policy changes makes student personnel management and counselling even more difficult. Additionally, students today encounter a wide range of challenges, from academic pressures to mental health concerns. This underscores the need for robust and effective management practices and counseling services to provide the essential support required for students to excel both academically and personally. In the ever-changing realm of education, Artificial Intelligence (AI) is proving to be a game-changer, unlocking innovative opportunities. The introduction of Artificial Intelligence (AI) tools presents a promising solution, offering the potential to transform various aspects of education, including efficient student personnel administration.

Artificial intelligence (AI) is a sophisticated technology designed to replicate human cognitive abilities through machine learning algorithms, neural networks, and natural

language processing (Igbokwe, 2023) ^[15]. As Igbokwe (2023) ^[15] highlights, AI is revolutionizing multiple sectors, including healthcare, finance, and manufacturing, and its influence is increasingly being felt in the education sector, particularly in educational administration. AI has the potential to greatly assist school administrators by enhancing the learning experience, improving student outcomes, and automating administrative tasks. AI-powered learning platforms can offer personalized education, provide instant feedback, and identify potential issues early on. Moreover, AI can help educators pinpoint students' strengths and weaknesses, enabling more tailored instruction. AI also promotes transparency and facilitates data-driven decision-making, leading to more efficient resource allocation and better personnel management.

In light of technological advancements, AI holds significant potential for optimizing financial resource management and improving student personnel administration. AI can streamline budgeting processes, track expenditures, predict financial requirements, and deliver real-time insights into resource allocation, ensuring more effective use of funds. Additionally, AI tools can enhance student personnel management by automating tasks such as attendance tracking, behavior monitoring, and identifying at-risk students early, enabling timely interventions. Consequently, this study aims to examine the application of Artificial Intelligence (AI) to student personnel management in secondary schools.

Application of Artificial Intelligence (AI) to Student Personnel Management

AI has also become an invaluable tool in educational management, with various researchers highlighting its diverse applications. Igbokwe (2023) ^[15] notes that AI can automate routine administrative tasks such as scheduling, grading, and record-keeping, allowing educators to focus on more strategic responsibilities. Efficient management of resources is crucial for the attainment of secondary school goals (Obona *et al.*, 2024) ^[7]. Teixeira *et al.* (2021) further emphasize that AI-based administrative tools increase efficiency and reduce errors, contributing to more streamlined educational systems. In some institutions, AI-powered intelligent tutoring systems have been implemented, which use AI to deliver personalized instruction (Igbokwe, 2023) ^[15]. These systems adapt to each student's unique learning style, as highlighted by Zhang and Li (2021) ^[35].

AI tools can also automate grading, ensuring consistency and saving an educator's time. Ecker *et al.* (2018) ^[8] found that automated grading systems often match the accuracy of human graders. Additionally, AI can analyze student data to identify those at risk of underperforming, allowing for early intervention. Wang *et al.* (2020) ^[33] point out that predictive analytics help educators detect students at risk of dropping out or failing, enabling timely support. AI's role in personalized learning further enhances student engagement and outcomes, as noted by Chen *et al.* (2021) ^[5]. AI can customize learning experiences tailored to individual student needs, while AI-powered chatbots provide instant responses to students' questions outside of class, improving retention and satisfaction (Liu *et al.*, 2020) ^[19].

Ahmed and Sulaiman (2020) found that AI significantly reduced time spent on data entry and retrieval, while improving accuracy in tracking student performance and disciplinary records. The study concluded that AI enhances student data management and provides valuable administrative support. Similarly, Johnson and Pereira (2021) ^[16] highlighted AI's potential to improve behavioral

management. Nakamura *et al.* (2022) ^[21] concluded that AI can enhance student welfare programs. The researcher explored AI's role in student welfare and mental health management through an AI-based counseling assistant. Principals found AI valuable in efficiently allocating resources to students in need of immediate support.

Karakose and Tülübaş (2024) ^[18] explored the impact of AI on school leadership by reviewing AI-based innovations in school management. AI technologies offer opportunities for school leadership by processing large datasets, simulating human-like cognition, and enabling transparent, participatory management. These tools help integrate teachers, students, and parents into educational processes, manage technical tasks like transportation and human resources, and use learning analytics to deliver personalized education and take preventive actions based on student data. In a study, Obona *et al.* (2024) ^[7] revealed that AI significantly contributes to the management of financial resources and student personnel in public secondary schools in Cross River State, Nigeria.

Application of Artificial Intelligence (AI) to Student counselling

The incorporation of artificial intelligence (AI) into school counseling is reshaping how students access support services. According to Oyebisi *et al.* (2024) ^[27], AI-driven tools and systems are improving the efficiency, customization, and effectiveness of counseling, empowering school counselors and educators to deliver data-informed guidance and interventions. With technologies ranging from chatbots and virtual assistants to predictive analytics and virtual reality-based therapies, AI is redefining the approach to student support. A study conducted by the American Psychological Association (2023) reveals that nearly 20% of students face serious mental health issues, such as anxiety and depression, which can greatly affect their academic performance and overall well-being. While traditional counseling approaches offer some benefits, they often fall short in addressing the increasing and varied needs of the student population (Johnson *et al.*, 2022) ^[16]. The future of student counselling lies in the continued integration of technology with personalized, empathetic human interaction (Oyebisi *et al.*, 2024) ^[27].

One notable advantage of chatbots and virtual assistants is their ability to offer instant support to students, alleviating anxiety and stress while providing valuable resources for mental health, wellness, career guidance, and exploration. These tools ensure students receive the assistance they need to thrive academically and personally (Rakap, 2023; Oyebisi *et al.*, 2024; Aristanto *et al.*, 2023) ^[28]. Additionally, chatbots and virtual assistants can be customized to address the unique requirements of specific schools and student populations. Another key benefit of AI in school counseling lies in its capacity to identify at-risk students who might otherwise go unnoticed (Oyebisi *et al.*, 2024) ^[27]. By analyzing data from various sources, AI can detect subtle patterns and warning signs—such as shifts in attendance or academic performance—that may indicate a student is struggling. This enables counselors to implement timely interventions and provide support to prevent more serious challenges from arising (Rakap, 2023) ^[28].

Furthermore, AI enhances the ability of school counselors to evaluate the effectiveness of their services and make informed, data-driven decisions about program development and resource allocation. By analyzing student outcomes and the impact of existing programs, AI offers insights into what is working and what requires improvement. This allows counselors to refine their strategies and optimize their efforts

to better support their students (Fullan *et al.*, 2023) ^[11]. AI technologies, including predictive analytics and machine learning, have the ability to process extensive data sets to identify patterns and forecast student behaviors and outcomes. These capabilities empower counselors to address potential concerns proactively, delivering timely and personalized interventions tailored to individual student needs (Smith & Anderson, 2023) ^[29]. For instance, AI can pinpoint students at risk of academic struggles, mental health challenges, or social difficulties, enabling counselors to craft targeted support strategies to address these issues (Johnson *et al.*, 2023) ^[17].

Moreover, AI-powered tools such as chatbots and virtual counseling platforms offer innovative solutions for student engagement. Chatbots provide instant, round-the-clock assistance, answering queries and offering support, thereby alleviating the workload of human counselors while ensuring continuous access to help (Brown & Lee, 2023) ^[4]. Virtual counseling platforms facilitate remote sessions, enabling students to connect with professional counselors regardless of location. These platforms also promote ongoing communication between students and counselors, fostering a consistent and supportive relationship (Garcia & Miller, 2022) ^[12]. However, integrating AI into school counseling poses significant challenges, particularly in terms of ethics, privacy, and data security. Protecting sensitive student information requires stringent safeguards to prevent unauthorized access and misuse (Chen & Roberts, 2023) ^[6]. Additionally, it is essential to ensure that AI-driven interventions complement rather than replace the human element of counseling, as empathy, understanding, and personalized human interaction are irreplaceable in effective student support (Taylor, 2022) ^[30].

Existing research highlights the transformative potential of Artificial Intelligence (AI) in reshaping and enhancing school management practices. However, no studies specifically focus on the application of artificial intelligence (AI) to student personnel management and counselling in public secondary schools in Cross River State, Nigeria. Most studies offer a broader or global perspective, while this study aims to contribute new insights by focusing on public secondary schools in Cross River State, Nigeria.

Statement of the problem

Student personnel management is a vital aspects of school administration which include counseling, discipline, extracurricular activities, and welfare programs, all aimed at promoting a well-rounded student experience. Parents and stakeholders expect school principals to manage these services effectively, creating a safe, supportive, and conducive atmosphere where students can thrive academically and personally.

However, the researchers have observed that many secondary schools face considerable difficulties in meeting these expectations. Challenges such as inadequate funding, inefficient resource management, limited staff, and weak support systems have hindered the ability to provide essential services for students. This has resulted in a decline in student performance, an increase in disciplinary problems, and a lack

of comprehensive support for students' personal development.

Despite various policies and initiatives introduced by the government to address these issues, the challenges persist. Consequent upon this, the researchers believe that the application of Artificial Intelligence (AI) could help mitigate these challenges, hence the current study exploring AI as a potential solution.

Objective of the study

The main objective of the study was to examine the application of Artificial Intelligence (AI) to student personnel management and counselling in public secondary schools in Cross River State, Nigeria.

Research question

The study addressed the question:

- What is the extent of application of Artificial Intelligence (AI) to student personnel management in public secondary schools in Cross River State, Nigeria?
- To what extent is Artificial Intelligence (AI) applied to student counseling in public secondary schools in Cross River State, Nigeria?

Methodology

The study covered the three education zones in Cross River State. The education zones are Calabar, Ikom and Ogoja. Descriptive survey research design was adopted. The choice of survey design was justified on the account that it sought to explain the relationship between the variables. The study population included all principals from 297 public secondary schools across Cross River State. Census method was used to include all the principals in the study. Data were collected using a 36 items structured instruments titled "Artificial Intelligence (AI), Student Personnel Management, and Counselling Questionnaire (AISPMQ)." The instrument was validated by three experts in the Departments of Educational Management and Measurement and Evaluation. The instrument had two (2) sections.

The instrument was structured in line with the modified 4-points Likert response scale which provided four levels of opinion as: Very High (VH), High (H), Low (E), Very Low (VL), with values of 4, 3, 2 and 1 respectively. Cronbach's Alpha was used to test the reliability of the instrument which gave reliability indexes of 0.81 and .87. which was considered high and adequate for the study. Mean and standard deviation were used to answer the research question with a criterion mean of 2.50. Questionnaire items with mean opinion scores below 2.50 denoted 'Low' while 2.50 and above signified 'High. The result is presented in tables.

Result

Research question one

What is the extent of application of Artificial Intelligence (AI) to student personnel management in public secondary schools in Cross River State, Nigeria? Mean and standard deviation were used to answer the research question and the answer is presented in table 1.

Table 1: Mean and standard deviation on application of Artificial Intelligence (AI) to student personnel management in public secondary schools in Cross River State, Nigeria

S/No	Items	Mean	Std. Dev.	Decision
1.	Artificial Intelligence (AI) as a tool: Helps to monitor student attendance in my school.	2.45	.94	Low
2.	Is applied to track student disciplinary records.	2.59	.77	High
3.	Is used to manage student academic records.	2.61	.88	High

4.	Helps me easily identify students with poor academic performance.	2.55	.87	High
5.	Is utilized to provide personalized learning resources to students.	2.42	.83	Low
6.	Is used in my school to manage student health records.	2.34	.88	Low
7.	Supports the scheduling of extracurricular activities.	2.42	.94	Low
8.	Helps me monitor student participation in school programs.	2.61	.88	High
9.	Is used to provide data on students' emotional well-being.	2.60	.81	High
10.	Assists in the allocation of resources for student welfare services.	2.60	.88	High
11.	Automates routine tasks related to student management.	2.39	.85	Low
12.	Is used to generate reports on student fees record.	2.42	.83	Low
13.	Assists in tracking students' involvement in school counseling services.	2.47	.91	Low
14.	Is employed to manage student admissions processes.	2.45	.94	Low
15.	Helps predict student enrollment numbers for future planning.	2.59	.77	High
16.	Assists in identifying students who need additional academic support.	2.61	.88	High
17.	Helps me to monitor the effectiveness of student support services.	2.45	.82	Low
18.	Is used to streamline communication between students and school personnel.	2.55	.87	High
	Average Mean and Std. Dev.	2.51	.86	High

The result of the analysis in Table 1 shows that items item 2, 3, 4, 8, 9, 10, 15, 16 and 18 have mean scores above the average mean of 2.50. This shows the level of principals' application of Artificial Intelligence (AI) in specific areas of student personnel management in public secondary schools in Cross River State, Nigeria. The results indicate that AI is being effectively used in particular areas, such as student disciplinary records, academic records, academic performance, participation in school programs, emotional well-being, welfare services, enrollment, academic support, and communication. However, items 1, 5, 6, 7, 11, 12, 13, and 14, have mean scores below the average mean of 2.50. This implies that the application of Artificial Intelligence (AI) to certain aspects of student personnel management in

public secondary schools in the Calabar Education Zone, Cross River State, Nigeria, is perceived to be limited or insufficient in areas, such as student attendance, personalized learning resources, health records, extracurricular activities, fees record, school counseling services, admissions processes, and support services.

Research question two

To what extent is Artificial Intelligence (AI) applied to student counseling in public secondary schools in Cross River State, Nigeria? Mean and standard deviation were used to answer the research question and the answer is presented in table 2.

Table 2: Mean and standard deviation on application of Artificial Intelligence (AI) to student counseling in public secondary schools in Cross River State, Nigeria

S/No	Items	Mean	Std. Dev.	Decision
1.	The application of AI-driven software: Improve the efficiency of counseling services I provide.	2.50	.95	High
2.	Helps me identify students who require counseling in my school.	2.55	.71	High
3.	Is useful in monitoring students' academic progress for effective counseling.	2.41	.31	Low
4.	Enables me to provide better guidance.	2.55	.82	High
5.	Helps me keep track of students' emotional health to inform counseling sessions.	2.42	.39	Low
6.	Enables me to foresee potential academic challenges students might face.	2.32	.26	Low
7.	Assists me in offering tailored counseling solutions for students.	2.52	.94	High
8.	Enables me to develop customized counseling plans for students.	2.61	.88	High
9.	Helps me to detect students who may be at risk of academic failure.	2.56	.81	High
10.	Allows me to communicate effectively with students regarding their counseling needs.	2.40	.18	Low
11.	Gather feedback on the effectiveness of my counseling services.	2.39	.85	Low
12.	Helps me recognize mental health challenges among students.	2.42	.73	Low
13.	Has enhance the quality of counseling services in my school.	2.57	.91	High
14.	Makes counselling session with students easy	2.65	.94	High
15.	Enables me to analyze behavioral trends among students to improve counseling outcomes.	2.59	.77	High
16.	Helps me to anticipate challenges that require counseling interventions.	2.41	.28	Low
17.	Guide me in refining my counseling strategies.	2.65	.82	High
18.	Plays a crucial role in making counseling services more effective.	2.58	.87	High
	Average Mean and Std. Dev.	2.51	.69	High

The result of the analysis in Table 2 shows that items item 1, 2, 4, 7, 8, 9, 13, 14, 15, 17 and 18 have mean scores above the average mean of 2.50. This shows the level of principals' application of Artificial Intelligence (AI) in specific areas of student counselling in public secondary schools in Cross River State, Nigeria. The results indicate that the application of AI-driven software helps to improve the efficiency of counseling services, identify students who require counseling, provide better guidance, offer tailored counseling solutions, develop customized counseling plans, detect students who may be at risk of academic failure, enhance the

quality of counseling services, make counselling session with students easy, refine counseling strategies, and make counseling services more effective. However, items 3, 5, 6, 10, 11, 12, and 16, have mean scores below the average mean of 2.50. This implies that the application of AI-driven software to monitor students' academic progress, keep track of students' emotional health, foresee potential academic challenges students might face, communicate effectively with students regarding their counseling needs, gather feedback, and anticipating challenges that require counseling interventions, in public secondary schools in the Calabar

Education Zone, Cross River State, Nigeria, is perceived to be limited or insufficient.

Discussion

The finding from data analysis on Table 1 showed a significant level of application of Artificial Intelligence (AI) in student personnel management in public secondary schools in Cross River State, Nigeria. This finding may be due to principals' view of AI as a valuable tool in enhancing their ability to meet the needs of students and improve overall school management. It also reflects their belief that AI's role in tasks such as attendance tracking, counseling, academic monitoring, and behavior management is beneficial. This reflects a growing integration of AI in managing student-related activities, leading to more efficient and personalized student support services. This implies that the introduction of AI has the potential to improve not only operational efficiency but also the well-being and academic performance of students. However, the results also suggest that while some areas are well-developed, further efforts may be needed to extend AI's application across other areas of student personnel management not captured by these specific items. This finding is in line with that of Igbokwe (2023) ^[15] that AI can automate routine administrative tasks such as scheduling, grading, and record-keeping, allowing educators to focus on more strategic responsibilities. It aligns with the submission of Teixeira *et al.* (2021) who emphasized that AI-based administrative tools increase efficiency and reduce errors, contributing to more streamlined educational systems. The finding further aligns with that of Ecker *et al.* (2018) ^[8] who found that automated grading systems often match the accuracy of human graders. Additionally, AI can analyze student data to identify those at risk of underperforming, allowing for early intervention. The finding support that of Nakamura *et al.* (2022) ^[21] that AI can enhance student welfare programs.

The finding from data analysis on Table 2 showed a significant level of application of Artificial Intelligence (AI) in student counselling in public secondary schools in Cross River State, Nigeria. This finding may be due to increased awareness of AI's potential to enhance personalized support, advancements in AI tools tailored for education, and initiatives promoting digital literacy among administrators. Additionally, rising student needs in areas such as mental health, academic guidance, and behavioral monitoring may have motivated principals to adopt AI solutions. This finding implies that schools are moving towards data-driven and technology-enhanced counseling practices, which could improve the efficiency and effectiveness of addressing students' needs. However, it also underscores the importance of continuous training for educators, equitable access to AI resources, and the development of policies to ensure ethical and effective use of AI in education.

The incorporation of artificial intelligence (AI) into school counseling is reshaping how students access support services. With technologies ranging from chatbots and virtual assistants to predictive analytics and virtual reality-based therapies, AI is redefining the approach to student support. This finding is in alignment with the submission of Oyebisi *et al.* (2024) ^[27] that a key benefit of AI in school counseling lies in its capacity to identify at-risk students who might otherwise go unnoticed. By analyzing data from various sources, AI can detect subtle patterns and warning signs—

such as shifts in attendance or academic performance—that may indicate a student is struggling. This enables counselors to implement timely interventions and provide support to prevent more serious challenges from arising (Rakap, 2023) ^[28]. Garcia & Miller (2022) ^[12] support that AI platforms also promote ongoing communication between students and counselors, fostering a consistent and supportive relationship.

Conclusion

The study concluded that the application of Artificial Intelligence (AI) significantly impacts student personnel management and counselling in public secondary schools in Cross River State. This implies that adopting AI can streamline administrative processes, enhance student data management, and improve decision-making. This can lead to more efficient tracking of student performance, better resource allocation, and improved educational outcomes.

Recommendations

Based on the study's findings, the following recommendations were made:

1. The Ministry of Education and school administrators should emphasize regular training and skill development for principals, counselors, and teachers. These initiatives should focus on equipping educators with the expertise needed to effectively adopt and apply AI tools in managing and supporting students.
2. The government and other key stakeholders should formulate robust policies and dedicate sufficient resources to facilitate the integration of AI in public secondary schools. This effort should ensure schools have access to dependable AI technologies, promote fair distribution of technological resources, and establish clear ethical guidelines for the responsible use of AI in educational settings.

Contribution to knowledge

The study contributes to knowledge by highlighting the significant role of Artificial Intelligence (AI) in enhancing student personnel management and counseling in public secondary schools. It provides empirical evidence of AI's application in education, particularly in identifying and addressing student needs through data-driven approaches. The findings emphasize the importance of integrating advanced technologies in counseling practices, offering practical insights for educators, policymakers, and stakeholders on leveraging AI to improve student support systems. Additionally, the study paves the way for further research into the broader implications of AI in educational management and its potential to transform counseling processes in diverse educational contexts.

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