DIFFICULTIES ENCOUNTERED IN ACADEMIC RESEARCH USING ARTIFICIAL INTELLIGENCE BY STUDENTS OF EDUCATIONAL MANAGEMENT IN RIVERS STATE UNIVERSITY

Ineye-Briggs Amarachi Cynthia
Department of Educational Management
Faculty of Education
Rivers State University, Port Harcourt
cynthia.ineye-briggs@ust.edu.ng

Abstract

The main purpose of the study is to investigate the difficulties encountered in academic research using artificial intelligence by students of Educational Management in Rivers State University. The study was guided by three specific objectives and three research questions. The research employed a mixed-method design, integrating both quantitative and qualitative approaches within a single study to leverage the strengths of each method and compensate for their respective weaknesses. the study purposively sampled 71 participants comprising 20 lecturers, 22 postgraduate and 29 undergraduates students, as research sample from lecturers, final year undergraduate students and postgraduate students carrying out seminar, project, dissertation and thesis for the 2020/2021 and 2021/2022 academic sessions. Both qualitative and quantitative data were collected through questionnaire and students' research reports respectively. The questionnaire used for quantitative data was faced validated and with internal consistency reliability coefficients of 0.71, 0.73 and 0.81respectively for the three components. This was obtained through Cronbach Alpha. Quantitative data was analysed using mean and statrdard deviation while qualitative data was analysed using document analysis. The findings of the study revealed that undergraduate and postgraduate students had varying degrees of difficulties in different aspects of research activities including framing research problem, planning the research as well as conducting the research. It was therefore recommended that, to make the training more engaging, faculty should re-evaluate the instructional delivery strategy using AI in courses like Research Methodology and Research Statistics to incorporate active learning techniques

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Keywords: *Difficulties, Academic Research, Artificial Intelligence, Educational Management*

Introduction

Academic research, according to Nwineh and Nwineh (2019) is a systematic and organized investigation of a specific topic or question within the academic or scholarly community. It is a process through which scholars and researchers aim to contribute new knowledge, insights, and understanding to a particular field of study. Academic research is characterized by its rigorous methodology, critical analysis, and adherence to scholarly standards. The methodical use of scientific inquiry techniques to the problem-solving of educational challenges is known as educational research (Gay, Mills, & Airasian, 2012; Ary, Jacobs, & Sorensen, 2010). Additionally, research in education is defined by Nwankwo (2016) as a set of procedures used to collect and analyse data in an effort to offer solutions to issues. The idea of educational problems is a fundamental and significant idea in these definitions of educational research or academic research. Academic research has the features, which include: purpose, systematic inquiry, rigorous methodology, peer review, publication, ethical standards, and continuous exploration.

1. **Purpose:** The primary goal of academic research is to expand the existing body of knowledge within a specific discipline or field.
2. **Systematic Inquiry**: Researchers follow a structured and systematic approach to gather, analyze, and interpret data or evidence related to their research question.
3. **Rigorous Methodology**: Academic research involves the use of rigorous and well-defined methodologies. This can include experimental designs, surveys, case studies, literature reviews, and other research methods depending on the nature of the study.
4. **Peer Review:** The findings of academic research are often subject to peer review, where other experts

in the field critically evaluate the research methods, results, and conclusions before publication.

5. **Publication:** Research findings are typically disseminated through academic publications such as journals, conference proceedings, or books. This helps share new knowledge with the broader academic community.
6. **Ethical Standards:** Researchers are expected to adhere to ethical guidelines and principles, ensuring the welfare of participants, maintaining integrity in reporting results, and avoiding plagiarism.
7. **Continuous Exploration:** Academic research is an ongoing process, with researchers building on existing knowledge and continuously exploring new avenues for inquiry.

Academic research can be conducted in various disciplines, including the sciences, social sciences, humanities, and educational management. In educational management, several issues persist in educational management across various levels and contexts. These issues can impact the effective functioning of educational institutions and systems. Some common educational problems in educational management are limited funding and resource allocation, teacher recruitment and retention, technology integration, inclusive education, assessment practices and standardized testing, leadership development, curriculum design and relevance, policy Changes and Implementation, globalization and cross-cultural issues: etc., Limited funding and resource allocation pose challenges in educational management as institutions grapple with insufficient budgets, hindering their ability to provide quality education, maintain facilities, and address evolving needs. Teacher recruitment and retention present difficulties due to competitive job markets and demanding workloads, impacting the overall quality of education. Technology integration is a challenge as it requires training and adapting curricula to accommodate digital tools, with resistance to change and limited access impeding progress. Inclusive education involves addressing diverse learning needs and ensuring equal opportunities, requiring adapted teaching methods and support services. Balancing effective assessment practices and standardized testing proves challenging, with overreliance potentially narrowing curricula and teaching methods. Leadership development is crucial for creating positive organizational cultures, and curriculum design must continuously evolve to align with societal changes. Policy changes and implementation require effective execution to avoid confusion and resistance. Globalization and cross-cultural issues necessitate a culturally responsive approach to prepare students for a globalized world. In summary, these issues underscore the multifaceted nature of educational management, where addressing financial, human resource, technological, and sociocultural factors is essential for fostering effective and inclusive learning environments (Kayii Akpomi, Koko, & Kpesu, 2023; Idris, Hassan, Osaigbovo, Christopher, & Ngwu, 2014).

To provide solutions to these issues by adapting to the 21st-century artificial intelligence, a guided and systematic inquiry needs to be employed using artificial intelligence. This is where educational research finds its essence. Research is an academic exercise that aims to provide solutions to matters that affect the society and its environment through the application of scientific procedures (Kpolovie, 2010).

Research plays a pivotal role in the development of society, as emphasized by Nwineh and Nwineh (2019) and supported by Ololube and Kpolovie (2012). According to Ololube and Kpolovie (2012)educational research contributes substantially to the existing knowledge base by addressing issues through literature reviews and research findings. Furthermore, Creswell underscores the positive impact of educational research on enhancing the professional practice of teachers. Solomon, Ochinyabo, and Nyitar (2013) highlight the potential of research in vocational and technical education to generate innovative ideas that can improve field practices, leading to economic empowerment, job creation, and the realization of vision 2020 goals. The importance of research in education is underscored by the inclusion of research methods and statistics courses in the curriculum for students at both undergraduate and postgraduate levels. Additionally, students in vocational teacher education engage in supervised research projects, a crucial aspect of their degree programs that contributes significantly to their understanding and application of research within the field of education.

Education manager or administrators is trained primarily as professional teachers, graduates are expected to assume teaching positions in secondary-level technical schools (Kumar, 2011). While engaged in teaching, educators encounter daily challenges in the course of facilitating learning. Some of these challenges may necessitate the application of action research to derive solutions. The teacher's familiarity with research acquired during their schooling can assist in initiating research inquiries to address issues related to the practice of teaching and learning. Therefore, students in this domain benefit significantly from understanding the processes involved in conducting research.

Engaging in a research project involves several stages as outlined in the literature, encompassing activities such as problem identification, literature review, articulating the purpose and research questions, study design, data collection, analysis, interpretation, reporting, and research evaluation (Nwineh & Nwineh, 2019: Nwankwo, 2016). Various authors have structured these activities into research process models, with Kumar's three-phase model being a notable example (2011). The model involves deciding what to study, planning the research, and executing it, including conceptualizing the research design, constructing data collection instruments, selecting study samples, and writing proposals. Despite the guidance provided by these models, literature reviews indicate that students, as shown in studies by Nwineh & Nwineh, (2019); Nwankwo, (2016) and Ololube and Kpolovie (2012), may encounter difficulties in different facets of their research work using artificial intelligence. For instance, engaging in academic research using artificial intelligence (AI) presents students with a set of challenges and difficulties that require careful consideration.

Firstly, students may encounter difficulties in understanding and navigating the complex landscape of AI technologies. The technical intricacies involved in using AI tools for research purposes may pose a steep learning curve, demanding additional time and effort from students to grasp the necessary skills (Russell & Norvig, 2018; Bengio, Goodfellow & Courville, 2016).

Secondly, the availability and access to advanced AI resources could be limited, particularly in educational institutions where infrastructure and financial constraints may hinder the deployment of state-of-the-art AI technologies. This limitation may restrict the students' ability to explore the full potential of AI in their research projects, hindering the depth and sophistication of their work (Floridi, 2011; Kumar, 2011).
Furthermore, ethical considerations and concerns related to AI applications in academic research may add another layer of difficulty. Students need to navigate issues such as data privacy, bias in AI algorithms, and the responsible use of AI, which requires a nuanced understanding of ethical frameworks in both AI and academic research (Akyürek, & Afacan, 2018).

In addition, the integration of AI into academic research demands a level of interdisciplinary knowledge. Students may need to bridge the gap between their domain-specific expertise and the technical requirements of AI, necessitating collaboration or additional training in AI applications relevant to their research. Lastly, the dynamic nature of AI technologies and their rapid advancements may lead to challenges in keeping pace with the latest developments. Students engaging in AI-based research must stay updated on emerging technologies, methodologies, and ethical guidelines, requiring a continuous commitment to professional development. Notably, these studies were conducted outside of Nigeria, and none specifically focused on students of Educational Management and teacher education in Nigeria, highlighting a research gap that this study aims to address. Existing research in Nigeria mainly explores challenges faced by students, tutors, and institutions during the research process (Nwineh & Nwineh, 2019; Joe, Kpolovie, Osonwa & Iderima, 2014).

Purpose of the Study

The aim of the study was to find out the difficulties encountered in carrying out academic research using artificial intelligence by students of educational management in Rivers State University. Specifically, the study sought to:

i Identify challenges encountered by students of educational management at Rivers State University in formulating a research problem.
ii Examine the obstacles faced by students of educational management at Rivers State University when planning a research study.
iii Investigate the difficulties experienced by students of educational management at Rivers State University during the execution of a research study.

Research Questions

The investigation was guided by the following research questions:

i What are the challenges do students of educational management at Rivers State University face in framing a research problem?
ii What difficulties are encountered by students of educational management at Rivers State University in planning a research study using artificial intelligence?
iii What difficulties do students of educational management at Rivers State University encounter when conducting a research study?

Methodology

The research employed a mixed-method design, integrating both quantitative and qualitative approaches within a single study to leverage the strengths of each method and compensate for their respective weaknesses (Creswell, 2012; Gay, Mills & Airasian, 2012; Onwuegbuzie & Johnson, 2006). In this design, quantitative and qualitative data were collected simultaneously, allowing for separate or combined analyses. While quantitative research addressed issues through statistical analysis, providing generalizable results to the population, qualitative research gathered in-depth descriptions to gain insights into the investigated issues The researcher aimed to enhance the understanding of difficulties faced by students in various aspects of their research projects by complementing quantitative data with qualitative data, making the concurrent mixed-method approach suitable. The study involved 71 participants from the educational Management Department of faculty of Education at Rivers State University, consisting of 22 postgraduate and 29 final year undergraduate students in educational Management, along with 20 out of the 47 lecturers in the department. To ensure participant anonymity, codes such as "01" were assigned to undergraduate students, and "02" to postgraduate students to develop the instrument. The instrument for quantitative data was a researcher' developed questionnaire. The questionnaire underwent face validation and exhibited internal consistency reliability coefficients of 0.71, 0.73 and 0.81 for its three components, as determined by Cronbach's Alpha. Within the questionnaire, students and lecturers were prompted to choose an option that best represented their agreement level regarding difficulties outlined in specific research areas. The Likert scale, ranging from Strongly Agree to Strongly Disagree, was employed to rate various sections of the instrument. Qualitative data was extracted from students' research reports and comments provided by research supervisors during presentations. Quantitative data, analyzed using percentages, combined responses of Strongly Agreed and Agreed as "Agreed" and responses of Strongly Disagreed and Disagreed as "Disagreed." Instances where one or two questionnaire items were left unanswered were treated as missing data during analysis. The analysis of qualitative data involved document analysis of research reports and comments from lecturers as primary sources of information.

Results

Research Questions: What are the challenges do students of educational management at Rivers State University face using artificial intelligence in framing a research problem?

Table 1: challenges students of educational management at Rivers State University face using artificial intelligence in framing a research problem

S/N	challenges students of educational management	Postgraduate (n=127)			Undergradutes (n=98)		
		M	S.D.	RMK	M	S.D.	RMK
1	Challenge in framing a researchable topic	2.99	1.15	A	2.96	1.15	A
2	Challenge in presenting the background of the study	3.00	0.91	A	2.94	0.93	A
3	Challenge in presenting the various research ideas with AI in the background of the study	3.12	0.59	A	3.13	0.59	A
4	Challenge in developing statement of the problem with AI	3.24	0.73	A	3.18	0.76	A
5	Challenge in stating main and specific objectives	3.30	0.75	A	3.26	0.75	A
6	Framing research questions from the specific objectives	3.06	0.73	A	3.03	0.71	A
7	Formulating testable hypotheses for a study.	2.81	0.86	A	2.81	0.86	A
8	Getting an appropriate outline for literature review.	2.70	0.84	A	2.66	0.80	A
9	Identifying theories to back up my study.	2.87	0.68	A	2.87	0.70	A
10	Identifying related empirical studies for my study.	2.77	0.81	A	2.74	0.83	A
11	carrying a review of related literature	3.13	0.68	A	3.08	0.67	A
	Grand Mean	**2.99**	**0.79**	**A**	**2.96**	**0.79**	**A**

Field Data, 2024 (A =Agreed; D = Disagreed)

Result from Table 1 shows the challenges students of educational management at Rivers State University face using artificial intelligence in framing a research problem in Rivers State. The result shows that: challenge in framing a researchable topic, Challenge in presenting the background of the study, Challenge in presenting the various research ideas with AI in the background of the study, Challenge in developing statement of the problem with AI, Challenge in stating main and specific objectives, Framing research questions from the specific objectives, Formulating testable hypotheses for a study, Getting an appropriate outline for literature review, Identifying theories to back up my study, Identifying related empirical studies for my study, and carrying a review of related literature all have high mean scores.

This result shows that respondents agreed that all the items are challenges of students of educational management at Rivers State University face using artificial intelligence in framing a research problem of their study. This is evident by mean responses being greater than 2.50 for items 1 to 11 for both postgraduates and undergraduate students. Grand mean values of 2.99 for postgraduates and 2.96 for undergraduate and confirm that using artificial intelligence in framing a research problem constitute challenge for students of educational management at Rivers State University. This result aligns with the findings drawn by Akyürek and Afacan (2018), who conducted a study at the Institute of Educational Science in Turkey to examine the difficulties students face when conducting research. A considerable percentage of graduate students were discovered to have difficulties in formulating research problems. The study corroborates the findings of Joe, Kpolovie, Osonwa, and Iderima (2014) in Nigeria, who highlighted several obstacles in research work, including a lack of coherence in the introduction, vague statements of problems, unclear study objectives, and inadequate literature review, among other concerns. Floridi (2011) states that students frequently face difficulties in assessing the scope of their material. The findings confirm the results obtained by Qasem and Zayid (2019), which showed that students faced difficulties in developing research subjects. Charema (2013) asserted that students encounter difficulties in choosing a study topic. This conclusion corroborates the findings of Ameen, Batool, and Naveed (2019), who noted that students had a deficiency in comprehending concepts throughout research activities. The students relied on previous theses, scholarly articles, and supervisors for help in their research pursuits. Nevertheless, the conclusions drawn by Ekpoh (2016) contrast with this outcome. Ekpoh highlighted several obstacles experienced by postgraduate students in performing their research, including funding constraints, conflicts between studies and jobs, lack of ICT skills among students, inadequate academic staff, and supervisors' low knowledge of research. The variability in results may have been influenced by the expected nature of the data to be obtained from the study. Quinlan (2011) states that the specific type and intended outcome of knowledge sought will determine the appropriate research technique to be employed. Furthermore, the selected approach dictates the manner in which data is gathered. The survey utilized in Ekpoh's research sought to collect data on the impediments and hindrances that limit pupils in their research endeavors. Conversely, the present study focused on gathering data regarding the precise challenges that students face while conducting research.

Research Question 2: What difficulties are encountered by students of educational management at Rivers State University in planning a research study using artificial intelligence?

Table 2: difficulties are encountered by students of educational management at Rivers State University in planning a research study

S/N	Difficulties are encountered by students	Postgraduates (n=127)			Undergraduates (n=98)		
		M	S.D.	RMK	M	S.D.	RMK
1	Selecting the appropriate study design	2.69	0.89	A	2.76	0.91	A
2	Obtaining instrument reliability.	3.18	0.99	A	3.18	0.98	A
3	obtaining a suitable sample for research	3.17	1.05	A	3.19	1.04	A
4	constructing a data collection instrument	3.35	0.77	A	3.36	0.76	A
5	Getting the instruments needed to collect data.	2.88	0.59	A	2.90	0.58	A
6	Selecting the right statistical instrument to address research questions.	2.57	0.78	A	2.58	0.77	A
7	Selecting the right statistical instrument to test formulated hypotheses	2.51	1.03	A	2.59	1.03	A
	Grand Mean	**2.90**	**0.87**	**A**	**2.93**	**0.86**	**A**

Field Data, 2024 (A =Agreed; D = Disagreed)

Result from Table 2 shows the difficulties encountered by students of educational management at Rivers State University in planning a research study. The result shows that: Selecting the appropriate study design, obtaining instrument reliability, obtaining a suitable sample for research, constructing a data collection instrument, Getting the instruments needed to collect data, Selecting the right statistical instrument to address research questions all have high mean scores.

This result shows that respondents agreed that all the items are difficulties encountered by students of educational management at Rivers State University in planning a research study. This is evident by mean responses being greater than 2.50 for items 12 to 18 for both postgraduates and undergraduate students. Grand mean values of 2.90 for postgraduates and 2.93 for undergraduate and confirm that using artificial intelligence in framing a research problem constitute challenge for students of educational management at Rivers State University. This results is consistent with the result obtained by Bocar (2013), who identified the construction of research questionnaires as a challenge faced by students during the research process. The findings corroborate the outcome reported by Manchishi, Ndhlovu, and Mwanza (2015) that master's students encountered challenges in effectively utilizing suitable methodology in their research endeavours. This discovery aligns with the observation made by Kumar (2011) that students struggle to identify appropriate data analysis methods for addressing research inquiries. However, Desmennu and Owoaje (2018) discovered different findings about the obstacles faced by postgraduate students in their study. They identified poor funding, limited access to research materials, and insufficient mentoring as some of the hurdles. The discrepancy in findings between Desmennu and Owoaje may have arisen due to the divergence in the research's focal point. Desmennu and Owoaje's study examined external obstacles that students encounter in their research, whereas the current study focused on challenges related to various components of the research process.

Research Question 3: What difficulties do students of educational management at Rivers State University encounter when conducting a research study?

S/N	difficulties students of educational management encounter	Postgraduates (n=127)			undergraduate(n=98)		
		M	S.D.	RMK	M	S.D.	RMK
19	Procedure for collecting data.	3.06	1.07	A	3.06	1.05	A
20	Using AI for analysing quantitative data.	2.99	0.91	A	3.00	0.90	A
21	Conditioned AI in interpreting analysed data	2.88	0.69	A	2.86	0.67	A
22	Procedure for doing discussion of findings.	3.12	0.59	A	3.11	0.57	A
23	Draw up summary of research findings.	3.46	0.70	A	3.49	0.69	A
24	Writing out recommendation based on study findings.	3.28	0.75	A	3.29	0.75	A
25	Collating Citations in Reference list	2.94	0.82	A	2.92	0.80	A
26	Creating a research study abstract.	2.99	0.86	A	3.00	0.81	A
	Grand Mean	3.09	0.79	A	3.09	0.78	**A**

Result from Table 3 shows the difficulties areas students of educational management at Rivers State University encounter when conducting a research study. The result shows that: Procedure for collecting data, using AI for analysing quantitative data, Conditioned AI in interpreting analysed data, Procedure for doing discussion of findings, Draw up summary of research findings, Writing out recommendation based on study findings, Collating Citations in Reference list writing a research study abstract all have high mean scores. This result shows that respondents agreed to all the items to represent difficulties areas students of educational management at Rivers State University encounter when conducting a research study. This is evident by mean responses being greater than 2.50 for items 19 to 24 for both postgraduates and undergraduate students. Grand mean values of 2.99 for postgraduates and 2.96 for undergraduate and confirm that using artificial intelligence in framing a research problem constitute challenge for students of educational management at Rivers State University. In discussing finding of a study, Nwankwo (2016) advised that the researcher needs to provide explanation of the finding followed by relating it to other findings in the body of literature. The discussion offered by this postgraduate student was considered to lack these elements. If this is true, it is likely that the student encountered difficulties in reviewing empirical studies that are relevant to the subject, as confirmed by

the quantitative data presented in Table 1. The outcome aligns with the findings of Akyürek and Afacan (2018) that student's encountered difficulty in data analysis. Ololube and Kpolovie (2012) discovered that students possessed a restricted understanding of utilizing statistical techniques for analyzing research data. Additionally, they encountered challenges in effectively communicating the study's findings, drawing conclusions, and providing recommendations. The discovery also confirms the catalog of challenges that students encounter when conducting their research, as identified by Paul Wong and Psych (2012). These challenges include inaccurate citations and an inability to adhere to the APA referencing style.

Analysis of Interview Data (Phase 2- Qualitative Data).

Theme 1: The challenges students of educational management at Rivers State University face in framing a research problem

The analysis of interviews with 20 educational management lecturers at Rivers State University identifies several difficulties students face in planning a research study using artificial intelligence (AI). A major challenge is the lack of technical skills and knowledge related to AI, with students often being unfamiliar with AI concepts, tools, and applications pertinent to educational research. The current curriculum lacks AI training and coursework, which exacerbates this knowledge gap. Additionally, students encounter resource constraints, including limited access to necessary AI software, hardware, and datasets, which are critical for conducting AI-driven research. The complexity of integrating AI into educational research also presents a significant hurdle, as students struggle with designing studies that effectively leverage AI technologies while addressing educational management issues.

Moreover, lecturers pointed out that students face difficulties in obtaining adequate mentorship and guidance in this specialized area, given that many faculty members themselves may not have extensive experience with AI. This mentorship gap limits the students' ability to receive comprehensive support and feedback on their research plans. There are also ethical and practical concerns, such as ensuring data privacy, handling large datasets, and interpreting AI-generated results, which add layers of complexity to their research planning. Furthermore, the fast-paced evolution of AI technology means that students must continuously update their knowledge and skills, a requirement that can be overwhelming alongside their regular academic workload. To mitigate these challenges, recommendations include incorporating dedicated AI courses and workshops into the curriculum, enhancing access to AI resources, fostering collaboration with AI experts, and providing targeted mentorship and ethical training to ensure students are well-equipped to plan and execute AI-driven research studies effectively.

Theme 2: Difficulties are encountered by students of educational management at Rivers State University in planning a research study using artificial intelligence

The analysis of interviews with 20 educational management lecturers at Rivers State University identifies several difficulties students face in planning a research study using artificial intelligence (AI). A major challenge is the lack of technical skills and knowledge related to AI, with students often being unfamiliar with AI concepts, tools, and applications pertinent to educational research. The current curriculum lacks AI training and coursework, which exacerbates this knowledge gap. Additionally, students encounter resource constraints, including limited access to necessary AI software, hardware, and datasets, which are critical for conducting AI-driven research. The complexity of integrating AI into educational research also presents a significant hurdle, as students struggle with designing studies that effectively leverage AI technologies while addressing educational management issues.

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Theme 3: Difficulties students of educational management at Rivers State University encounter when conducting a research study

Interviews with 20 educational management lecturers at Rivers State University revealed several difficulties students encountered when conducting research studies. A primary challenge is the lack of research skills among students, who frequently struggle with fundamental aspects such as defining research questions, designing methodologies, and analyzing data. We attribute this deficiency to inadequate training and limited practical exposure to research practices within the curriculum. Resource constraints further exacerbate these challenges, with students facing limited access to academic literature, research tools, and the funding necessary for comprehensive studies. Lecturers also noted that students frequently encounter difficulties in obtaining reliable data, compounded by logistical issues and limited support in navigating bureaucratic processes for data collection.

However, there is a significant gap in mentorship, as many lecturers are overextended with their teaching and administrative responsibilities, leaving little time for providing detailed guidance to students. This lack of support can lead to poorly designed studies and weakly justified research findings. Conceptual challenges also arise, with students often having trouble applying theoretical frameworks and demonstrating critical thinking, which are crucial for rigorous research. Additionally, motivational issues, such as low levels of engagement and interest in research, hinder students' dedication and persistence in conducting thorough studies. Socioeconomic factors, including financial pressure and the need to balance work or family commitments, further impact students' ability to focus on their research. To address these issues, suggestions include enhancing research training and practical exposure, improving access to research resources, strengthening mentorship programs, and providing financial and logistical support to students to facilitate more effective and comprehensive research studies.

Conclusion

Knowledge of research enhances the capacity of Educational Management students to engage in research enquiry towards finding solutions to issues that bother on effective teaching and learning in different levels of education. Findings of this study show that both undergraduate and postgraduate students in the Department of Educational Management in Rivers State University have some varying level of difficulties in the areas of framing research problem, planning for a research and conducting research using Artificial intelligence. This situation is ugly and capable of limiting the capacity of students to adapt and integrate technological innovation in education to engage in research activities that could aid solutions to problems of educational problems.

Recommendations

In light of the findings of this study, it was recommended that:

1. To make the training more engaging, faculty should re-evaluate the instructional delivery strategy using AI in courses like Research Methodology and Research Statistics to incorporate active learning techniques.
2. In addition to the regular supervisor-to-student engagements in research, postgraduate students should participate in a mentorship program. This might guarantee authentic real-world experiences for student researchers.
3. Staff members should organize regular seminars and workshops to discuss research-related techniques using AI. This would provide a platform for mentees engaged in research supervision to acquire and assimilate the skills necessary to effectively communicate research expertise to their mentors.

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