ASSESSING ARTIFICIAL INTELLIGENCE INFLUENCE ON STUDENTS' ACADEMIC OUTCOME AT IMO STATE UNIVERSITY, OWERRI, NIGERIA

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ABSTRACT: The abstract provides a reasonable summary, outlining the study's focus on AI's impact on reading culture, access to academic resources, and exam success. The study specifically examined the extent to which artificial intelligence impacts students' reading culture, investigated the extent to which artificial intelligence impacts students' access to academic resources and determined the extent to which artificial intelligence impacts students' success rate in exams at Imo State University, Owerri. Relevant literature was reviewed to back up the study, and the technology acceptance theory (TAT) formed the theoretical framework. The study employed a descriptive research design for the survey. A questionnaire was used for data collection, and data was analysed using frequency counts and percentages. A total of 200 respondents were conveniently selected. From the responses obtained and analysed, the findings revealed, among other things, that Artificial intelligence has, to a high extent, impacted students' reading. On the basis of these findings, it was recommended, among others, that Lecturers should be well-trained in using AI to equip learners with the required skills to face future care challenges and inadvertently improve their academic performance. University administrators should ensure that students do not use AI unethically or illegally to gain unfair advantage during examinations.

Keywords: Artificial Intelligence, Academic Performance, Reading culture, Success Rate of Student

INTRODUCTION

According to Copeland (2024), artificial intelligence (AI), is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience.

Artificial intelligence (AI) has become an integral to many industries, revolutionising traditional practices and offering innovative solutions to complex problems. In the context of education, AI technologies are increasingly being utilized to enhance teaching and learning processes. These technologies include intelligent tutoring systems, automated grading software, adaptive learning platforms, and virtual teaching assistants, designed to improve educational outcomes and provide personalised learning experiences (Chen, Wang, & Meng, 2020).

Artificial intelligence is a field of science concerned with building computers and machines that can reason, learn, and act in such a way that would normally require human intelligence or that involves data whose scale exceeds what humans can analyse. AI is a broad field that encompasses many different disciplines, including computer science, data analytics and statistics, hardware and software engineering, linguistics, neuroscience, and even philosophy and psychology (Stryker & Kavlakoglu, 2024).

The future of AI in education holds promise but requires careful consideration of its implementation and impact. Ongoing research and development are essential to enhance the effectiveness and accessibility of AI tools. Policymakers and educational institutions must work together to address the digital divide and ensure that all students benefit equally from AI advancements (Jones, 2021). Moreover, educators must be trained to effectively integrate AI into their teaching practices, leveraging the strengths of AI while maintaining the essential human elements of education. Therefore, the researcher sought to assess the extent to which artificial intelligence impacts students' reading culture, investigated the extent to which artificial intelligence impacts students' access to academic resources and determined the extent to which artificial intelligence impacts students' success rate in exams at Imo State University, Owerri.

Problem Statement

The rapid advancement of artificial intelligence (AI) technologies has significantly influenced various sectors, including education. As educational institutions increasingly integrate AI tools into their pedagogical practices, understanding their impact on students' academic performance becomes crucial. This research seeks to investigate AI's effects on undergraduate students' academic performance. AI technologies, such as intelligent tutoring systems, personalised learning platforms, and automated grading systems, promise to enhance learning experiences by providing customized feedback and support.

Furthermore, AI driven platform could be used to enhance student's access to academic resources in Imo State University, Owerri. It is pertinent to note that the present economic hardship has significant effect on parents to provide the financial resources to purchase books and other learning materials to the children and wards in higher institutions. Hence one could adduce that introduction of AI could be significant in bridging the educational divide, fostering inclusivity, and promoting lifelong learning. AI has significantly expanded the availability of educational resources for students. AI-powered platforms such as digital libraries, educational websites, and e-learning tools offer a vast array of resources, including textbooks, research papers, articles, and multimedia content.

Finally, as it touches on students' success rate in examinations at Imo State University, Owerri, AI could play a significant role in improving their success rate in the examinations. AI-powered educational platforms can tailor learning experiences to meet individual student's needs by using data analytics to understand each student's strengths and weaknesses, adapting the curriculum accordingly. For instance, AI can recommend specific exercises, quizzes, and study materials that address a student's particular gaps in knowledge

Therefore, this research aims to explore not only the overall impact of AI on academic performance but also the differential effects across diverse student populations.

Objectives of the study

Generally, the study assesses the impact of Artificial intelligence on the academic performance of IMSU students. The general objective of this study is to assess artificial intelligence's influence on students' academic outcomes at Imo State University, while the specific objectives are as follows:

1. Examine the impacts of artificial intelligence on student's reading culture at Imo State University, Owerri.
2. Explore the impacts of artificial intelligence on students' access to academic resources at Imo State University, Owerri.
3. Determine the extent to which artificial intelligence impacts students' success rates in exams at Imo State University, Owerri.

Some Contending Literature and Rational Issues on Artificial Intelligence and Students' Academic Outcomes

Artificial Intelligence

The term Artificial Intelligence was introduced by John in the 1950s, defining it as "the science and engineering of making intelligent machines". Since then, the field has evolved as the definition of AI. Currently, a single universal definition of AI does not exist. This is partially due to the rapid development of the field, but also because researchers outside of computer science in the areas of healthcare, philosophy, economics, and arts have taken a great interest in AI and its application. Each of these research fields has modified the term AI to its own needs and uses, and this interdisciplinary nature of AI makes it difficult to establish a consensus about what AI is.

To make this more concrete, describe two of the most common AI-enabled educational applications, and one none AI-enabled application (Reister & Blanchard, 2020). Intelligent Tutoring Systems (ITS) are an AI application as they provide personalised and adaptive instruction to learners. ITS takes on the role of a human tutor, by offering guidance, feedback, and support to learners. It uses AI techniques to capture learner's strengths, weaknesses, and progress. By adapting the learning content, difficulty level, and feedback to these learning traits of each user, the learning experience is then optimized. Similarly, automated assessment and feedback systems are considered AI as they autonomously assess students' work. One of the most essential AI techniques for such systems is Natural Language Processing (NLP), which the applications use to analyse and understand human language. Using this technique, an automated assessment model can extract meaningful information from, for example, students' written responses to open-ended text questions. Subsequently, this information can be assessed, using Machine Learning models trained to score and evaluate responses (Reister & Blanchard, 2020).

The Use of Artificial Intelligence in Education

Like in many other areas, artificial intelligence has been applied in education and has been influenced by various factors and changes over the last few decades. Financial pressures on universities associated with the increased number of students and more extensive staff and operating costs, partly caused by the democratisation of higher education, make AI technology very attractive (Popenici & Kerr, 2017). The importance of applying artificial intelligence in

the educational sector was especially emphasised due to the COVID-19 pandemic, which resulted in a shift from traditional classroom teaching to a digital form of learning (Maqbool, Ansari & Otero, 2021; Pantelimon et al., 2021; Mijwil et al., 2022).

Using the methodology of writing narrative overviews, Chassignol et al. (2018) considered the following main educational areas that could be influenced by artificial intelligence content and teaching, assessment, and communication. The application of AI can contribute to its customisation when it comes to content and teaching. Taking into account the heterogeneity among students, a better understanding of their learning requirements is necessary, and therefore, the educational content should be personalised to their needs (Bhutoria, 2022). As an alternative to a traditional concept, personalised learning is an "approach in which teaching is customised according to the needs and abilities of an individual student" (Magomadov, 2020, p. 1). There are the so-called intelligent tutoring systems (ITS) that can offer step-by-step tutorials adjusted to each student; some of them are Spark, developed by Domoscio, and Gooru Navigator, known as Google Maps for learning (Holmes & Tuomi, 2022).

Despite the mentioned benefits, it should be noted that the application of AI in the assessment process related to automatic scoring, especially in the case of high-stakes testing, represents "one of the two high-risk use cases in the proposed EU AI Act, and so would be regulated by its provisions (Holmes & Tuomi, 2022). AI technology has influenced the area of communication in the educational process, with a focus on providing adequate feedback to students (Chassignol et al., 2018). According to Wongvorachan et al. (2022, p. 95), feedback represents „a crucial component of student learning "that enhances the level of their understanding. Communication between teachers and students is especially important under online conditions, despite the fact that this type of interaction significantly affects student satisfaction and performance in the learning process (Seo et al., 2021).

Student Perceptions of Artificial Intelligence

In a number of investigations, artificial intelligence was analysed in the context of students. Among them are those in which the emphasis was on students' perceptions of AI, including their attitudes, beliefs, and/or fears. Such was the research of Gherheş and Obrad (2018), which involved undergraduate students. According to the results obtained, the majority of them believed that they had a below-average level of information about AI. A significant number of respondents had a positive attitude towards the development of artificial intelligence, and more than half of them believed that it will positively affect society. On the other hand, the probability of humankind being destroyed by intelligent devices and the disappearance of workplaces were the greatest fears associated with the emergence of AI.

The Student Conceptions of AI in Education Scale (SCAIES) was developed based on the factors above. Kuleto et al. (2021) paid attention to artificial intelligence and machine learning (ML) taking into account their opportunities and challenges in higher education institutions (HEI). In addition to content analysis, they implemented the survey among students; the results of the regression model have shown that the enhancement of personalised learning driven by AI and ML can be performed through the development of student skills, the provision of a collaborative learning environment in the HEI, and the development of an accessible research environment.

AI Impact on Learning and Teaching Process

Dealing with the impact of AI on learning and teaching in higher education, it is evident that AI will impact higher education in many ways and mainly in two focal areas: enrolment and curriculum (Taneri, 2020). Indeed, focusing on the learning and teaching process, no one would doubt that AI is replacing the lecturer or tutor in many ways, such as blended learning and e-learning. The presence of an e-learning lecturer is limited as the learner interacts with a virtual classroom, whether on Blackboard, Moodle, Turnitin or any other platform (Jlu & Laurie, 2018).

Nevertheless, AI offers various learners links about the topics required by the subject matter and eases and inspires both learner and tutor by addressing different learning styles such as autonomous learning, visual learning, e-learning, audio-visual learning, and deep learning. Equally, AI enables the tutor to select and apply the learning method taxonomy that the learner needs and highlights the areas of improvement to be focused on (Jabar & Yousif, 2011). Meanwhile, AI reinforces independent learning as the learner becomes autonomous and free to access input anytime and anywhere.

Finally, according to Richer (1985), AI positively influences education by providing intelligent computer-assisted instruction that facilitates learning intuition and provides expert systems to diagnose and assess learning outcomes (Richer, 1985). It is undoubtedly clear that AI adds a lot to the learning and teaching process, so what about assessments and grading.

Concept of Academic Performance

Academic performance is the most essential component of education. In this aspect, it is expected that schools would have an influence on kids' learning, socializing, and even occupational preparedness. Despite the emphasis on a broad knowledge of educational objectives, academic accomplishment remains crucial. Students' academic success is a term that comes up often in debates concerning higher education. Academic performance is a multifaceted construct made up of a learner's talents, attitudes, and actions that aid in classroom success (Hijazi & Naqvi, 2016). It is an acceptable and remarkable level of accomplishment as students go through and conclude their educational experience (Tinto, 2016).

Researchers have utilized a variety of methods to evaluate academic success, including report card grades, grade point averages, standardized test scores, teacher evaluations, other cognitive test scores, grade retention, and dropout rates. Student academic performance, on the other hand, is defined in this study as a student's ability to complete a specific class assignment in a school setting.

Causes of Poor Academic Performance

There are several issues that contribute to pupils' low academic performance, ranging from Anxiety, bad self-concept, and sexuality, as well as inadequate study methods, reading approaches, organ limitations, and indiscipline, are among them.

i.   Anxiety:

According to (Johnson,2018), anxiety arises when individuals are at odds with themselves. Conflicting inclinations, needs, and ideals collide to create the underlying conflict. Secondary

school students are in their adolescent years, when many of them are confronted for the first time with facts about themselves, particularly their academic achievements. Individuals feel conflict and discontent as a consequence of this, which leads to anxiety and tension in the classroom, reducing their focus and resulting in poor academic performance.

ii. Poor Self-Concept:

Self-concept refers to one's sense of self. It all starts with a person's comprehension of who they are. Self-concept aids a student's comprehension of himself or herself and the management of his or her conduct. Teachers, parents, peers, personal motivation, and a student's gender all have a role in a student's academic self-concept and achievement.

iii. Poor Reading Techniques

Many secondary students suffer with academic challenges including poor reading habits, with the majority of them being slow readers who don't comprehend what they're reading. The lack of students to identify the underlying structure and important aspects in previously studied content has been blamed for their poor academic achievement. Many students who have performed poorly have had difficulty focusing. Academic is a wonderful therapy for children who have difficulty reading since it teaches them how to read properly.

iv. Epileptic power supply

When there is no reliable power supply, students get demotivated to read and study, which has a negative impact on their academic performance. Because of the many services that electricity may give in the classroom, the absence of power in schools is sad. Classes may be offered early in the morning or late at night with the right lighting. Access to electricity makes it easier to integrate ICTs like computers and TVs into the classroom.

v. Drug abuse

Drug abuse is one of the greatest causes of unnecessary mortality, disease, and injury, as well as a threat to international peace. Inhalants, heroine, and cocaine are all commonly utilized drugs (Acolagbe, 2015). Nonetheless, in the context of this study, drug abuse is defined as taking an excessive amount of a single drug or substance, or indiscriminately ingesting drugs that might disrupt the biological functioning and physiological behavior of those who consume them.

Impact of Artificial Intelligence on Students Reading Culture

Artificial Intelligence (AI) is revolutionizing various sectors, including education. Its integration into the educational system has profound implications for students' reading culture. Reading culture refers to the habitual and regular engagement with reading activities, fostering critical thinking, comprehension skills, and a lifelong love for learning. The impact of AI on students' reading culture can be seen through enhanced personalized learning experiences, improved access to resources, and the development of new reading habits.

AI-driven platforms offer personalized learning experiences tailored to individual students' needs. These platforms use algorithms to analyze students' reading abilities, preferences, and progress, enabling them to provide customized reading materials and recommendations. For

instance, AI can identify students' weak areas and suggest specific texts that target those skills, thereby enhancing their reading proficiency (Smith, 2023). This accessibility encourages more frequent reading among students, as they can easily find materials that interest them and fit their academic needs (Brown & Garcia, 2023). Moreover, AI tools can recommend relevant resources based on students' previous readings and interests, making the search for new materials more efficient and engaging.

Impact of Artificial Intelligence on Students Access to Academic Resources

Artificial Intelligence (AI) is transforming the educational landscape, particularly in enhancing students' access to resources. With the advent of AI technologies, students can now access a wealth of information and educational materials more efficiently and effectively. This transformation is particularly significant in bridging the educational divide, fostering inclusivity, and promoting lifelong learning. AI has significantly expanded the availability of educational resources for students. AI-powered platforms such as digital libraries, educational websites, and e-learning tools offer a vast array of resources, including textbooks, research papers, articles, and multimedia content.

Educators and policymakers must address these issues to ensure that AI is used responsibly and inclusively. AI has a profound impact on students' access to resources, enhancing availability, personalization, and efficiency. By bridging the educational divide and supporting collaborative learning, AI can significantly improve educational outcomes. However, it is essential to address the challenges associated with digital access and data privacy to fully realize the potential of AI in education.

Impact of Artificial Intelligence on Students Success Rate in Exams

Artificial Intelligence (AI) is increasingly being integrated into educational systems, offering new tools and methodologies that can significantly enhance students' success rates in exams. AI-driven technologies provide personalized learning experiences, continuous feedback, and efficient study resources, which collectively contribute to improved academic performance. AI-powered educational platforms can tailor learning experiences to meet individual students' needs. These platforms use data analytics to understand each student's strengths and weaknesses, adapting the curriculum accordingly (Johnson & Smith, 2023).

Empirical review

Luke (2023) explores ChatGPT's utilization among undergraduate students, examining its prevalence, impact, and ethical dimensions in an evolving educational landscape. While prior research acknowledges technology's increasing role in education, specific patterns of AI tool utilisation and ethical dimensions remain less explored. This study aims to bridge that research gap by offering a comprehensive understanding of AI's impact on students and their education. The findings demonstrate swift ChatGPT integration among undergraduate students. Notably, 65% of surveyed students utilized ChatGPT for academic tasks while 48% employed it for non-academic purposes. Students reported experiencing moderate academic improvements across various classes, with none indicating no perceived improvement from ChatGPT use.

The aim of this study is to analyse the influence of AI on higher education, investigate its impact on the teaching and learning process, examine its effect on assessment and grading, and predict its influence on graduates' future careers. To accomplish this, the study employs a

qualitative approach based on a survey of the higher education audience. The results of this study demonstrate the crucial role of AI in the future of higher education. The findings highlight the effectiveness and efficiency of AI in equipping graduates with new skills for their future careers.

Wilfred (2024) analyses how AI affects undergraduate effectiveness in higher learning institutions. The study's population set consisted of 600 undergraduate students from the selected institutions of higher learning in South-Eastern Nigeria. The sample size obtained by the Krejcie and Morgan (1970) sampling procedure was 234, which reflected the quantity of survey instruments deployed.

Finally, the collected data set was tested and evaluated using the Descriptive (Mean) and Inferential Statistical tools of the Statistical Package for Social Sciences software. The outcome of the statistical analysis suggests that artificial intelligence positively impacts undergraduates' effectiveness in institutions of higher learning. Despite the ethical limitations that professional analysts see in performance and the commitment to excellence of aspiring young adults, it is discovered that the use and implementation of AI enhances effectiveness, and also guarantees greater viability for undergraduates.

Theoretical Framework

Technology Acceptance Theory (TAT; Davis, 1986)

The Technology Acceptance Theory (TAT) is a widely recognized theoretical framework in the field of information systems and technology management that seeks to understand and predict user acceptance and adoption of new technologies. In the context of our research topic, which focuses on exploring the views of artificial intelligence (AI) on academic performance of students in IMSU, TAT can offer valuable insights into the factors influencing the acceptance and adoption of AI-based technologies in education.

Additionally, by triangulating qualitative findings with quantitative measures of technology acceptance, you can gain a comprehensive understanding of the complex dynamics underlying the integration of AI in various field of study and thereby identify strategies for promoting its effective use and integration in educational practice in Imo State University, Owerri.

METHODOLOGY

Scope of the study

The study focuses on the impact of Artificial intelligence on the academic performance of students. It is also limited to Imo State University Owerri. The research covers the eighteen (18) departments from the faculty of social sciences, Faculty of Business Administration and Faculty of Education. They includes; Social Sciences (6 Departments): Sociology, Psychology, Public administration, Economics, Public Administration, and Political Science; Faculty of Business Administration (6 Departments): Accountancy, Banking and Finance, Hospitality and Tourism Management, Insurance and Actuarial Science, Management and Marketing; Faculty of Education (6 Departments): Physical Science Education, Life Science Education, Language Education, Social Science Education, Arts Education, Library and Information Science.

Research Design

The survey research design was adopted for the study. This is to enable the researcher obtain valuable information using a mix of descriptive, explanatory and exploratory design. The descriptive mix helps to present data pertaining to socio-demographic profiles of the respondents, and core issues on how drug abuse affects academic performance of students in Imo State University.

Population of the Study

The target populations of this study are the three (3) faculties as mentioned below: Education, Social Sciences and Environmental Sciences. They have an estimated population of two thousand four hundred (2400) students. This was arrived based on one hundred and fifty (150) students admitted per session multiplied by the total numbers of departments sampled.

Sample Size

A sample size is a subset containing the characteristics of a larger population. Due to the large size of the target population, the researcher used a sample size of 450 students. We used the rule of thumb to choose six (6) departments from the three (3) selected faculties. This was distributed proportionately to all the 6 departments. That is 75 copies of the questionnaire for these departments (Accountancy and Insurance; Sociology and Economics and Physical Science Education and Life Science Education) selected from the faculties in brackets (Business Administration, Social Sciences and Faculty of Education) respectively. However, only 285 questionnaires were fit to be used for analysis. This put the actual sample size at 285 being returned questionnaire.

Sampling technique

A multistage sampling technique was used in this survey. The first stage involves selecting three Faculties (Business Administration, Social Sciences and Faculty of education) from the study area which is Imo State University Owerri. The second stage involves selecting two departments each from the selected faculties so that each faculty will be represented.

Technique for Data Collection

The techniques that were used for this study was questionnaires and interviews. It involves administering structured questionnaire to gather quantitative data on student experiences and perceptions on the issue under study. Also, interviews were conducted with some students to gain qualitative insight on the study.

Techniques (Methods) of Data Analysis

The responses were analysed using frequency counts and percentages, which provided answers to the research questions. The hypothesis test was conducted using the Pearson Chi-Square statistical tool, SPSS v.23. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.68 indicated that the research instrument was relatively reliable. According to (Taber, 2017) the range of a reasonable reliability is between 0.67 and 0.87

DISCUSSION OF FINDINGS

Presentation and Analysis of Data: Table 1: **Retrieval Rate of Questionnaire**

Total distributed	271
Total Returned	232
Total Valid	200

Source: Field Survey, 2024

From the table above, a total of two hundred and seventy-one (271) questionnaires were administered to respondents and 232 were returned of which only two hundred (200) were validated. This shows that there is a 73.8% retrieval rate of questionnaire. This clearly indicated that we had a high response rate from the research subjects.

Table 2: Gender of Respondents

Options	Frequency	Percentage (%)
Male	100	50
Female	100	50%
Total	**200**	**100**

Source: Field survey, 2024

The data collected from Table 2 reveals that 50% of the respondents were male and female 50%, constituting 100% of the total responses. This is clearly shows that there was a balance representation of IMSU students in the study.

Table 3: Age of Respondents

Age	Frequency	Percentage (%)
17-18	50	25
19-20	65	32.5
21-25	37	18.5
26-30	30	15
35+	18	9
Total	**200**	**100**

Source: Field survey, 2024

Table 3 shows clearly that the highest number of responses (32.5%) came from individuals aged 19-20. This could imply that this age group is likely the most active in AI use or engaged demographic in the survey or study. It might suggest that they are more inclined towards participating in surveys.

Table 4: Educational Level of Respondents

Options	Frequency	Percentage (%)
100 Level	50	25
200 Level	70	35
300 Level	62	31
400 Level	18	9
Total	**200**	**100**

Source: Field survey, 2024

The data in Table 4 shows the distribution of responses respondents of different educational levels. Among the 200 responses, the majority (35%) were from students in 100l, indicating a significant representation from this group. This could imply that students in their second year were more actively engaged or accessible for the survey than students at other academic levels requirements.

Data Analysis

This section analyses the formulated research questions for this study below:

Table 5: Artificial intelligence impact on students' reading culture in Imo State University, Owerri

Options	Frequency	Percentage (%)
Strongly Agree	95	47.5
Agree	50	25
Disagree	35	17.5
Strongly Disagree	20	10
Total	**200**	**100**

Source: Field survey, 2024

The data in Table 5 shows that the majority of respondents, comprising 47.5%, strongly agree that artificial intelligence impact students reading culture in Imo State University, Owerri. Additionally, 25% of respondents agree with this statement. Together, these two categories represent a significant portion, 72.5%, of the total responses, indicating a strong consensus among the participants regarding artificial intelligence impact students reading culture in Imo State University, Owerri.

Table 6: Ways artificial intelligence impact students reading culture in Imo State University, Owerri

Statement	SA	A	D	SD
AI-powered apps can make reading more engaging through gamification	75 (37.5%)	65 (32.5%)	35 (17.5%)	25 (12.5%)
AI chatbots and virtual tutors can help students understand complex texts	70 (35%)	60 (30%)	45 (22.5%)	25 (12.5%)
AI technologies like text-to-speech (TTS) can help students with reading difficulties or visual impairments by converting written text into spoken words	78 (39%)	63 (31.5%)	39 (19.5%)	20 (10%)

Source: Field survey, 2024

This table 6 shows the responses regarding ways artificial intelligence impact students reading culture in Imo State University, Owerri. The majority of respondents strongly agree that AI-powered apps can make reading more engaging through gamification. Also, the respondents mostly agree that AI chatbots and virtual tutors can help students understand complex texts. The opinions are divided regarding whether AI technologies like text-to-speech (TTS) can help students with reading difficulties or visual impairments by converting written text into spoken words.

Table 7: The extent at which artificial intelligence impact students reading culture in Imo State University, Owerri

Options	Frequency	Percentage (%)
Very High Extent	40	20
High Extent	112	56
Moderate Extent	30	15
Low Extent	18	9
Total	**200**	**100**

Source: Field survey, 2024

The data in table 7 shows that the majority of respondents (56%) strongly believe that artificial intelligence has to a high extent impacted on students reading culture in Imo State University, Owerri. Furthermore, 20% of respondents said to a very high extent. Moderately Extent and Low Extent responses, comprising 15% and 9% respectively, suggest that there is a minority opinion among respondents who perceive the influence of artificial intelligence on students reading culture in Imo State University, Owerri.

Whether respondents agree that artificial intelligence impact student's access to academic resources in Imo State University, Owerri

Options	Frequency	Percentage (%)
Strongly Agree	80	40
Agree	48	24
Disagree	40	20
Strongly Disagree	32	16
Total	**200**	**100**

Source: Field survey, 2024

The data in table 8 shows that 80% of the responses fall under "Strongly Agree" and "Agree," it indicates a significant consensus among the respondents that artificial intelligence impact students access to academic resources in Imo State University, Owerri. The relatively smaller percentages for "Disagree" and "Strongly Disagree" suggest that there's a minority view or disagreement regarding this influence.

Ways artificial intelligence impact students access to resources in IMSU

Statement	SA	A	D	SD
AI help in the efficient organization and retrieval of resources in digital libraries, making it easier for students to find the materials they need.	68 (34%)	58 (29%)	40 (20%)	34 (17%)
AI systems analyze students' learning patterns and preferences to recommend books, articles, research papers, and other resources tailored to their individual needs	69 (34.5%)	60 (30%)	41 (20.5%)	30 (15%)
AI assist students with disabilities by converting text to speech and vice versa, making resources more accessible to everyone	70 (35%)	60 (30%)	40 (20%)	30 (15%)

Source: Field survey, 2024

The data in Table 9 shows the ways artificial intelligence impact students access to resources in Imo State University, Owerri. Option 1 suggests that a significant portion of respondents

strongly believe that AI help in the efficient organization and retrieval of resources in digital libraries, making it easier for students to find the materials they need.

The extent artificial intelligence impact students access to resources in IMSU

Options	Please tick	Percentage (%)
Very High Extent	56	28
High Extent	59	29.5
Moderate Extent	50	25
Low Extent	35	17.5
Total	**200**	**100**

Source: Field survey, 2024

The data in table 9 shows that the overwhelming majority of respondents (29.5%) believe that artificial intelligence impacted to a high extent on student's access to academic resources in Imo State University, Owerri. Following closely, 28% of respondents still acknowledge to a very high extent. This indicates that even though not as dominant as the high extent, there is still a substantial acknowledgment of the impact of artificial intelligence on student's access to resources in Imo State University, Owerri.

Whether respondents agree that artificial intelligence impact students' success rate in exams in Imo State University, Owerri

Options	Frequency	Percentage (%)
Strongly Agree	83	41.5
Agree	48	24
Disagree	39	19.5
Strongly Disagree	30	15
Total	**200**	**100**

Source: Field survey, 2024

The data in Table 9 shows that the majority of respondents, comprising 41.5% of the total, agree, while 24% strongly agree that artificial intelligence impact student's success rate in exams in Imo State University, Owerri. Conversely, 19.5% disagree and only 15% strongly disagree with this notion. This indicates that there is a smaller portion of respondents who do not perceive a strong relationship between artificial intelligence and student's success rate in exams in Imo State University, Owerri.

Ways artificial intelligence impact student's success rate in exams in Imo State University, Owerri

Statement	SA	A	D	SD
AI-driven platforms create personalized study plans based on individual student's strengths, weaknesses, and learning pace, ensuring targeted and efficient exam preparation	77 (38.5%)	68 (34%)	35 (17.5%)	20 (10%)
AI provide detailed feedback on practice tests and assignments, helping students understand their mistakes and learn from them	67 (33.5%)	60 (30%)	43 (21.5%)	30 (15%)
AI-powered tutoring systems are available round-the-clock, which is especially useful during exam preparation	83 (41.5%)	64 (32%)	33 (16.5%)	20 (10%)

Source: Field survey, 2024

The data in table 10 shows the ways artificial intelligence impact student's success rate in exams in Imo State University, Owerri. From the findings, the highest percentage of respondents (38.5%) in option 1 strongly agree that AI-driven platforms create personalized study plans based on individual student's strengths, weaknesses, and learning pace, ensuring targeted and efficient exam preparation. Option 2 also garnered significant support, with 38.5% strongly agreeing and 33.5% agreeing that AI provide detailed feedback on practice tests and assignments, helping students understand their mistakes and learn from them.

The extent artificial intelligence impact student's success rate in exams in Imo State University, Owerri

Options	Please tick	Percentage (%)
Very High Extent	79	39.5
High Extent	65	32.5
Moderate Extent	36	18
Low Extent	20	10
Total	**200**	**100**

Source: Field survey, 2024

Table 11 shows that an overwhelming majority of respondents (39.5%) believe that artificial intelligence to a very high extent impact on student's success rate in exams in Imo State University, Owerri. Furthermore, 32.5% of respondents rated the influence of artificial intelligence as very high. This indicates that a substantial proportion of respondents consider artificial intelligence to have an even stronger influence beyond just being high.

RESULTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.594[a]	1	.000
Continuity Correction[b]	48.743	1	.000
Likelihood Ratio	49.521	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	51.129	1	.000
N of Valid Cases	200		

X^2 = 51.594, df (c-1, r-1) = 1, N = 200, p = .000 at 0.05 level of significance.

The result from the chi-square test in table 4 proved that artificial intelligence has significant impact on student's reading culture in Imo State University, Owerri.

Artificial intelligence does have significantly impact on student's access to academic resources in Imo State University, Owerri.

Chi-Square test result showing whether Artificial intelligence does have significant impact on student's access to academic resources in Imo State University, Owerri.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	48.114[a]	1	.000
Continuity Correction[b]	38.221	1	.000
Likelihood Ratio	46.422	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	48.007	1	.000
N of Valid Cases	200		

X^2 = 48.114, df (c-1, r-1) = 1, N = 200, p = .000 at 0.05 level of significance.

The Chi-Square Test in table 11 proves Artificial intelligence have significant impact on student's access to academic resources in Imo State University, Owerri.

Artificial intelligence does have significant impact on student's success rate in exams in Imo State University, Owerri.

Findings in table 13 were used to test the hypothesis three.

Table 16: Chi-Square test result showing whether Artificial intelligence does have significant impact on student's success rate in exams in Imo State University, Owerri.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.558[a]	1	.000
Continuity Correction[b]	09.249	1	.000
Likelihood Ratio	10.743	1	.000
Fisher's Exact Test			
Linear-by-Linear Association	12.200	1	.000
N of Valid Cases	200		

X^2 = 12.558, df (c-1, r-1) = 1, N = 200, p = .000 at 0.05 level of significance.

The Chi-Square test in table 16 established that Artificial intelligence does have significant impact on student's success rate in exams in Imo State University, Owerri.

DISCUSSION OF RESEARCH FINDINGS

Our finding revealed that Artificial intelligence has to a very high extent impacted students reading culture in Imo State University, Owerri. The research findings presented in tables 5 through 7 consistently demonstrates a strong consensus among respondents regarding the significant influence of artificial intelligence on students reading culture in Imo State University, Owerri.

Artificial intelligence tools such as ChatGPT, Scikit Learn, TensorFlow, PyTorch, CNTK, Caffe, Apache MXNet, Keras, OpenNN, AutoML, H2O, OpenAI, Grammarly, and Quillbox, provide learning materials that help students develop effective problem-solving strategies in

their courses, provide students with personalized guidance, which help to improve their problem-solving skills over time. This is in line with an interview done with Miss Chidera, a 200-level student from Insurance department who stated that artificial intelligence, has helped in improving her reading culture as the use of AI simplify and break down variables making it easy to read. This was supported by the study of Wah and Gašević (2020) which states that the utilization of artificial intelligence tutoring systems has the potential to provide tailored guidance, support, and feedback to students based on their individual learning patterns and knowledge levels. Our test of hypothesis one also supports the view that Artificial intelligence have a significant impact on students reading culture in Owerri Municipal Imo State in Imo State University, Owerri.

Our study also revealed that Artificial intelligence has to a very high extent impacted student's access to academic resources in Imo State University, Owerri. The research findings presented in tables 4.8 through 4.10 consistently demonstrates a strong agreement among respondents regarding the significant influence of artificial intelligence on student's access to resources in Imo State University, Owerri. Artificial intelligence has been observed to be the safe haven for students who are seeking easy access to academic resources; this has aided students in getting unlimited access to information which can further improve their academic performance. The study done by Jain and Jain (2019) which revealed that students can learn by the experimentation strategy without fear as AI bolsters in their search skills and give help to their information need. Our test of hypothesis two also indicated that Artificial intelligence have significant impact on student's access to academic resources in Imo State University, Owerri.

Revelation from the study equally showed that Artificial intelligence has to a very high extent impacted student's success rate in exams in Imo State University, Owerri. The research findings presented in tables11 through13 consistently demonstrates a strong agreement among respondents regarding the significant influence of artificial intelligence on student's success rate in exams. Interview was carried out with Chijioke a student of Sociology, who stated that artificial intelligence has helped me source for academic materials which has in turned reflected in my success during examination. This statement is corroborated by the study of Tuomi (2018) which state that AI has thus provide exciting new opportunities for adapting learning content based on student's individual characteristics, and can speed-up cognitive development and create cognitive capabilities that would help in the academic achievement of students during and after examination.

The influence to be at a moderate extent (18%) or low extent (10%). This suggests that the majority of respondents see artificial intelligence as having a notable impact on student's success rate in exams in Imo State University, Owerri, with relatively few considering the influence to be moderate or low.

Conclusion

Based on the finding of this study, the following conclusions were made:

1. Artificial intelligence has to a high extent impacted students reading culture in Imo State University, Owerri.
2. Artificial intelligence has to a high extent impacted student's access to academic resources in Imo State University, Owerri.
3. Artificial intelligence has to a very high extent impacted student's success rate in exams in Imo State University, Owerri.

Recommendations

Based on the research findings the researcher made the following recommendations:

1. Lecturers should be encouraged in using AI to equip learners with the required skills to face future care challenges and inadvertently improve their academic performance.
2. University administrators should ensure that students do not use AI unethically or illegally to gain unfair advantage during exam.
3. The government and Ministry of Education should heavily invest on AI technology to meet the local needs of Nigerian students to enhance progress in the country.
4. The government and Ministry of Education should heavily invest on AI technology to meet the local needs of Nigerian students to enhance progress in the country.

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