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Impact of Artificial Intelligence on the Learning Assessment of Students in Tertiary Institutions in South-West, Nigeria

Impact de L'intelligence Artificielle sur L'évaluation de L'apprentissage des Étudiants dans les Établissements D'enseignement Supérieur du Sud-Ouest, Nigéria

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Abstract

The study aimed to identify the impact, accessibility, suitability, and challenges of artificial intelligence on the learning assessment of students in tertiary institutions in South-west, Nigeria. A descriptive research design was employed during this study. The population for the study comprised all academic staff at the Lagos State University of Education, LAUSED. A simple random sampling technique was adopted to select 90 respondents across seven colleges in the university. A self-structured questionnaire on a 4-Likert scale format containing 20 items was used to elicit responses from the respondents. Construct and content validity were undertaken by experts in educational technology. A Cronbach's Alpha reliability technique was used to determine the reliability of the instrument, which obtained a value of 0.89. Descriptive statistical tools of mean and percentile were employed to analyse the data gathered from the respondents. The findings of the study revealed that AI-powered assessment tools are suitable and easily accessible for learning assessments at Lagos State University of Education, also, AI-powered solutions are adaptable and simple to use, meeting a range of academic requirements including assessing students' strengths and weaknesses, supporting a variety of devices, and assisting with academic

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writing. It was recommended that institutions provide regular, hands-on training for academic staff to effectively use AI-powered assessment tools, such as workshops, seminars, and capacity-building programmes, to ensure that academic staff are equipped to integrate AI technologies into their assessment practices.

Keywords: Artificial Intelligence; Learning Assessment; Students; Tertiary Institutions

Résumé

L'étude visait à identifier l'impact, l'accessibilité, l'apttitude et les défis de l'intelligence artificielle sur l'évaluation de l'apprentissage des étudiants dans les établissements d'enseignement supérieur du sud-ouest du Nigeria. Un modèle de recherche descriptif a été utilisé au cours de cette étude. La population de l'étude comprenait l'ensemble du personnel académique de l'Université d'éducation de l'État de Lagos, LAUSED. Une simple technique d'échantillonnage aléatoire a été adoptée pour sélectionner 90 répondants dans sept collèges de l'université. Un questionnaire auto-structuré, au format d'une échelle de Likert en 4 points et contenant 20 éléments, a été utilisé pour recueillir les réponses des répondants. La validité de construction et de contenu a été évaluée par des experts en technologie éducative. Une technique de fiabilité de Cronbach Alpha a été utilisée pour déterminer la fiabilité de l'instrument, qui a obtenu une valeur de 0,89. Des outils statistiques descriptifs de moyenne et de centile ont été utilisés pour analyser les données recueillies auprès des répondants. Les résultats de l'étude ont révélé que les outils d'évaluation alimentés par l'IA sont adaptés et facilement accessibles pour les évaluations de l'apprentissage à l'Université d'éducation de l'État de Lagos, en outre, les solutions alimentées par l'IA sont adaptables et simples à utiliser, répondant à une série d'exigences académiques, notamment l'évaluation des forces et des faiblesses des étudiants, la prise en charge d'une variété d'appareils et l'aide à la rédaction académique. Il a été recommandé que les établissements offrent régulièrement une formation pratique au personnel enseignant afin qu'il puisse utiliser efficacement les outils d'évaluation alimentés par l'IA, tels que des ateliers, des séminaires et des programmes de renforcement des capacités, afin de s'assurer que le personnel enseignant est équipé pour intégrer les technologies de l'IA dans leurs pratiques d'évaluation.

Mots-clés: intelligence artificielle ; évaluation de l'apprentissage ; étudiants ; établissements d'enseignement supérieur

Introduction

Background to the Study

The foundation of innovation and socioeconomic advancement is generally accepted to be education. In addition to providing individuals with the fundamental knowledge and skill sets they need, it also cultivates the critical thinking, creativity, and adaptability skills necessary for navigating the complexity of the modern world (Halaweh, 2023). This advanced education is concentrated at tertiary institutions, which provide students with the opportunity to get specialised knowledge that is suited to the needs of different sectors. According to Ogunode et al. (2022), tertiary education in Nigeria refers to a wide range of post-secondary establishments, such as universities, polytechnics, colleges of education, and specialised training institutes, each of which makes a distinct contribution to the country's educational landscape.

Although post-secondary education conveys theoretical knowledge and emphasises practical skills necessary for professional preparedness, it also plays a crucial role in preparing individuals for their different responsibilities in society (FRN, 2013). The goal of tertiary education, according to the policy, is to produce a highly qualified workforce that can propel national progress, which includes delivering high-quality educational opportunities, encouraging entrepreneurship, supporting research and innovation, and ensuring the curriculum complies with national and international standards. These goals are essential for meeting the changing demands of the economy and guaranteeing that graduates have the skills necessary to make valuable contributions to societal development (Opara, 2023).

To quantify students' learning outcomes and maintain accountability within educational institutions, assessment is an essential part of the educational process. It is an important component of educational practice, as Van den Akker (2003) points out, given that it provides the information needed to make defensible judgements on the efficacy of curricula and student performance. Exams, continuous

assessments, projects, and practical evaluations are just a few of the assessment techniques used in Nigeria to measure student learning and accomplishment (Gronlund, 2006; Webber & Tschepikow, 2012). These tests are essential to ensure that students have the skills needed for their future employment; they are more than mere formality.

According to Jacob et al. (2024), the current situation regarding assessment in Nigerian tertiary institutions is characterised by a complicated interplay between traditional methods and modern technology. Historically, assessments depended mainly on traditional exams, which frequently emphasised rote memorisation and standardised testing. Most higher education institutions use these approaches, and students routinely take high-stakes exams that have a considerable impact on their overall grades. While such exams are intended to test student knowledge and understanding of course content, they frequently fail to capture the entire range of student learning, notably critical thinking, problem-solving abilities, and practical application of information. As a result, teachers and administrators are increasingly recognising the limits of traditional assessment approaches, spurring a transition towards more comprehensive evaluation strategies that can better represent students' learning outcomes (Murphy et al., 2023).

In recent years, there has been an increased emphasis on continuous assessment approaches that incorporate many types of evaluation, such as coursework, projects, and practical evaluations that attempt to give a more comprehensive understanding of student performance and learning outcomes. Continuous assessment provides more frequent feedback and promotes active learning, allowing students to engage more thoroughly with the subject matter throughout the academic year (John et al., 2018). However, implementing continuous evaluation is not without its problems. Many institutions continue to face challenges such as grading inconsistency, a lack of standardised rubrics, and insufficient staff training in establishing and executing efficient assessment techniques. Furthermore, the dependence on traditional assessment methods continues, frequently overshadowing efforts to diversify assessment techniques and provide a more supportive learning environment.

The assessment procedure has been completely transformed, as Nigerian tertiary institutions' embrace the use of Computer-Based Testing (CBT), especially for large student populations. CBT streamlines assessment administration and automates the grading process, which allows effective assessment management (Daramola, 2017). The logistical issues with traditional paper-based evaluations, such as printing, distribution, and manual grading, are significantly reduced by this approach. Additionally, CBT makes it possible for institutions to administer exams in a more regulated setting, reducing problems like exam malpractice and guaranteeing that students finish their tests in a safe atmosphere. CBT improves the process, which eventually leads to providing immediate results and feedback. Despite the advantages of CBT, its implementation in Nigerian tertiary institutions has faced several challenges. Inadequate technological infrastructure, especially in less-funded institutions, has limited the widespread adoption of CBT systems. Moreover, there is often a lack of training for both lecturers and students on how to effectively use these platforms (Shobayo et al., 2022).

Assessment methods in school have seen substantial modifications as a result of the introduction of technology. Teachers are looking for creative ways to incorporate technology into assessment methods as a result of the growing dependence on digital tools and platforms (Wyant & Baek, 2019). There is a noticeable shift towards the use of innovative technologies in assessment processes as the educational landscape transforms. The need for more adaptable, effective, and perceptive methods of evaluating student achievement poses an opportunity to conventional evaluation techniques; in this regard, platforms for Artificial Intelligence (AI) are becoming revolutionary instruments capable of resolving the shortcomings of traditional evaluation methods (Iqbal et al., 2024). AI systems may offer individualised learning experiences, automate grading procedures, and give insightful information about student learning patterns by utilising data analytics, machine learning, and adaptive learning technologies. This shift is in line with global trends towards technology-enhanced education, which prioritise the development of competences and skills necessary for the contemporary workforce.

Innovative technologies that have the potential to improve educational experiences and results include Artificial Intelligence (AI), virtual and augmented reality, and Learning Management Systems (LMS) (Shute & Rahimi, 2017). Particularly, AI has drawn interest due to its capacity to evaluate enormous volumes of data, customise educational experiences, and provide students with fast feedback. This technology is seen to be a driving force behind the transformation of conventional assessment techniques, allowing teachers to embrace more effective, impartial, and expandable means of gauging student achievement.

Applications of AI in education include automated grading systems that expedite the assessment process and personalised learning routes that adjust to the demands of each student (Mena-Guacas et al., 2023). These developments have the potential to greatly increase the efficacy of learning evaluations by providing more accurate information about students' development and areas in need of improvement. There is an urgent need to assess these technological innovations' efficacy and determine the optimal implementation techniques as educational institutions use them more and more (Papapicco, 2020).

Statement of the Problem

Numerous obstacles prevent Nigerian tertiary institutions from providing high-quality instruction and upholding strict criteria for learner assessment. Given the competitive environment, these institutions must ensure that their curricula are robust, current, and in line with both national and international standards, in addition to drawing in more students, especially in science-related fields (Anirban, 2014). Regretfully, a lot of institutions suffer from a lack of government financing, which frequently results in a lack of resources, deteriorated infrastructure, and little assistance for academic growth.

The situation is further complicated by stakeholders' increasing demands for accountability, transparency, and high-quality educational outcomes. Students routinely voice their displeasure with the evaluation procedures, casting doubt on the impartiality and

precision of their assessments. Students have occasionally contested their scores, asking for reassessments and voicing scepticism about the grading techniques their teachers used (Carless, 2015; Norton et al., 2013). Such circumstances not only damage educational institutions' reputations, but also foster mistrust between students and lecturers.

Furthermore, considering the rapid rate at which technology is developing, tertiary institutions must modify their methods of instruction and evaluation to successfully integrate new technologies. However, a lack of infrastructure, insufficient teacher training, and reluctance to abandon conventional assessment techniques are some of the obstacles that many institutions confront when attempting to effectively use AI for learning assessments (Timms, 2016). Institutions run a risk of lagging in providing students with the abilities and information needed to succeed in an increasingly digital environment if they don't take a methodical approach to incorporating AI into the assessment framework. AI presents a potential solution to some of these challenges. By harnessing the capabilities of AI, educational institutions can enhance the accuracy, efficiency, and fairness of learning assessments.

Purpose of the Study

The specific purpose of this study was to:

1. Examine the accessibility and suitability of AI in assessing learning at the Lagos State University of Education (LASUED).
2. Identify the impact of AI-enhanced learning analytics in assessing students' learning.
3. Investigate the challenges and barriers that impede the effective utilisation of artificial intelligence for the assessment of students at the Lagos State University of Education.

Research Questions

1. How accessible and suitable is AI in assessing learning at the Lagos State University of Education (LASUED)?

2. What is the impact of AI-enhanced learning analytics in assessing students' learning?
3. What are the challenges and barriers that impede the effective utilisation of artificial intelligence for the assessment of students at the Lagos State University of Education?

Theoretical Framework

The theoretical framework for this research is anchored on the Technological Pedagogical Content Knowledge (TPACK) framework, which serves as a critical lens for understanding the integration of Artificial Intelligence (AI) in learning assessments within tertiary education. TPACK highlights the intricate relationship between three core components: technology, pedagogy, and content knowledge. This framework guided the investigation into the impact of Artificial Intelligence on the learning assessment of tertiary education students in a typical Nigerian tertiary institution. The implications of this framework extend to enhancing assessment practices, promoting effective pedagogical strategies, aligning with content standards, fostering collaboration among stakeholders, and guiding policy development. By addressing these dimensions, the research aimed to contribute to the ongoing discourse on the role of technology in education and its potential to transform learning assessments in Nigeria.

Research Methodology

The descriptive research design was used for this study. This research design type was suitable because it helped to gather, organise, analyse, and present data to describe the occurrence of an event within a group of people. The population for this study was all academic staff at the Lagos State University of Education (LAUSED). A simple random sampling technique was adopted to select 90 respondents from the population, which was chosen across the seven colleges in the university. The researchers adopted the use of a self-structured questionnaire titled ‘Impact of Artificial Intelligence on Learning Assessment on Students Questionnaire (IAILASQ).’ The instrument was made up of two sections. Section A

generated responses on respondents' biodata, while Section B generated responses on the two objectives of the study. Section B was further divided into three sections - BI, B2 and B3. In general, 20 items were designed on a 4-point Likert Scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) respectively. Positive items were worded 4-3-2-1, while negative items were reversely worded 1-2-3-4, respectively. The questionnaire was validated by two Test and Measurement experts in the Department of Counselling Psychology, LASUED. However, construct and content validity were claimed to be met by the experts after removal and moderation of items in the instrument. Sub-scale index value of the instrument was determined as r=0.79, 0.89 and 0.82. In general, Cronbach's Alpha, a reliability measure, was carried out, and the overall index value for the instrument was 0.89, which shows the internal consistency of items. Descriptive statistics such as mean, criterion mean, and percentile were used by the researchers to analyse the data.

Results

Table 1: How accessible and suitable is AI in assessing learning at Lagos State University of Education (LASUED)?

S/N	Statements	SA	A	D	SD	Total	Mean
1	AI-powered assessment systems are user-friendly and easy to navigate.	33 (37%)	49 (54%)	7 (8%)	1 (1%)	90	3.26
2	AI-powered system helps identify areas of strength and weakness in learning.	21 (23%)	62 (69%)	3 (3%)	7 (8%)	90	3.14
3	I trust the accuracy and fairness of the assessments generated by the AI system.	16 (18%)	67 (74%)	7 (8%)	-	90	3.1
4	AI-driven assessments can be adapted to align	26 (29%)	57 (63%)	7 (8%)	-	90	3.21

	with various learning objectives of a course.						
Cr	Criterion means for Suitability……. 3.18						
5	AI-powered learning assessment systems accommodate and are suitable for different devices (e.g., computers, tablets, smartphones).	48 (48%)	34 (43%)	7 (8%)	1 (1%)	90	3.43
6	AI-powered assessment systems are free and easily accessible.	47 (52%)	36 (40%)	7 (8%)	-	90	3.44
7	AI-powered assessment technologies have access to various referencing styles and tools which cater to different writing styles.	47 (52%)	37 (41%)	6 (7%)	-	90	3.46
8	AI features in the system support academic research and scholarly pursuits.	56 (62%)	28 (31%)	6 (7%)	-	90	3.59
Cr	Criterion means for Suitability……. 3.48						

From Table 1: it can be deduced with regards to suitability, 91% of the respondents agreed that AI assessments can be adapted to align with various learning objectives while 9% disagreed; 92% of the respondents trusted the accuracy and fairness of the assessments generated by the AI system as 8% of respondents do not support its use for assessment; 92% of the respondents claim that AI-powered system helped to identify areas of strength and weakness in learning as 8% disagreed; the majority of respondents representing 91% supported that AI-powered assessment systems are user-friendly and easy to navigate as against 9% of the respondents who disagreed. The

overall mean score for the suitability of AI in learning assessments is 3.18, above the cut-off of 2.5. The mean suggests that respondents generally find AI assessment tools well-suited to the academic environment. On accessibility, 91% of the respondents claimed AI features supported academic research and scholarly pursuits as against 9% that disagreed; 92% of the respondents claimed AI-powered assessment technologies have access to various referencing styles and tools which cater to different writing styles especially when writing their publications as against 8% who disagreed outrightly; 93% of the respondents stated that AI-powered assessment systems are free and easily accessible as against 7% of the respondents who had a contrary assertion; However, 93% of the respondents agreed that AI-powered learning assessment systems are suitable for different devices (e.g., computers, tablets, smartphones) while 7% of the students disagreed. The accessibility criterion mean which is 3.48, was well above the cut-off, confirming that respondents find AI systems accessible. From Table 1 above, the respondents affirmed that AI is accessible and suitable for assessing learning at the Lagos State University of Education.

Table 2: What is the impact of AI-enhanced learning analytics in assessing students' learning?

S/N	Statements	SA	A	D	SD	Total	Mean
9	AI-enhanced assessments increase the efficiency and effectiveness of evaluating learning objectives and students' proficiencies.	43 (48%)	39 (43%)	7 (8%)	1 (1%)	90	3.38
10	Feedback from AI-powered assessment allows for timely intervention and support to struggling students.	47 (52%)	36 (40%)	7 (8%)	-	90	3.44
11	The use of AI has positively impacted the assessment	15 (17%)	69 (77%)	6 (6%)	-	90	3.1

	practices of lecturers, leading to more innovative and adaptive approaches to assessment.						
12	Students find the insights provided by AI-driven assessments beneficial and unbiased.	56 (62%)	28 (31%)	6 (7%)	-	90	3.56
13	AI-based assessment tools have positively influenced the overall quality and fairness of academic evaluations.	43 (48%)	39 (43%)	7 (8%)	1 (1%)	90	3.38
14	Feedback generated by AI-enhanced learning analytics is instrumental in helping students identify and address areas that need improvement.	47 (52%)	36 (40%)	7 (8%)	-	90	3.44
Cr	Criterion mean……3.38						

Table 2 shows that 91% of the respondents claimed that the insights provided by AI-driven assessments is very beneficial and unbiased as only 9% disagreed; 92% agreed that the use of AI has positively impacted the assessment practices of lecturers thereby leading to more innovative and adaptive approaches to assessment, while 8% refuted; 94% of the respondents agreed that feedback from AI-powered assessment allows for timely intervention and support to struggling students, while 6% of the disagreed; 93% of the respondents agreed that feedback generated by AI-enhanced learning analytics is instrumental in helping students identify and address areas that need improvement, as 7% disagreed; 91% of the students agreed that AI-based assessment tools have positively influenced the overall quality and fairness of academic evaluations, while 9% totally

disagreed; 92 of the respondents agreed that AI-enhanced assessments increased the efficiency and effectiveness of evaluating learning objectives and students' proficiencies among others. The highest mean score from the items was 3.56, indicating that the respondents find AI-generated insights beneficial and unbiased, suggesting that students value the fairness of AI assessments. The overall criterion mean of 3.38 confirms a positive impact of AI on learning assessment, exceeding the cut-off of 2.5. The finding indicates that AI-enhanced learning analytics has a positive impact on assessing students' learning.

Table 3: What are the challenges and barriers that impede the effective utilisation of artificial intelligence for the assessment of students at the Lagos State University of Education?

S/N	Statements	SA	A	D	SD	Total	Mean
15	A lack of standardisation and guidelines for incorporating AI in learning assessment practices creates uncertainty and challenges in implementation.	56 (62%)	20 (22%)	14 (16%)	-	90	3.2
16	Inadequate training and professional development opportunities for educators on using AI in assessment impede effective utilisation.	56 (62%)	28 (31%)	6 (7%)	-	90	3.56
17	Limited access to necessary technology infrastructure poses a barrier to the effective utilisation	42 (47%)	40 (44%)	7 (8%)	1 (1%)	90	3.37

	of AI packages in its use, as only IT-compliant students would find it useful.						
18	The high cost associated with acquiring AI packages for learning assessment is a major challenge.	47 (52%)	36 (40%)	7 (8%)		90	3.44
19	Limited access to necessary technology infrastructure poses a barrier to the effective utilisation of AI packages for learning assessment.	53 (59%)	17 (19%)	20 (22%)	-	90	3.37
20	Resistance to change among educators and stakeholders inhibits the successful implementation of AI in learning assessment.	55 (61%)	29 (32%)	6 (7%)	-	90	3.53
Cr	Criterion mean …….3.41						

From Table 3 above, 84% of the respondents indicated that a lack of standardisation and guidelines for incorporating AI in learning assessment practices creates uncertainty and challenges in implementation, as 16% refuted; 93% of the respondents maintained that inadequate training and professional development opportunities for educators on using AI in assessment impede effective utilisation, as only 7% disagreed; 93% of the respondents accepted that limited access to necessary technology infrastructure poses a barrier to the effective utilisation of AI packages, as against 7% that disagreed;

92% of the respondents admitted that the high cost associated with acquiring AI packages for learning assessment are a major challenge, as against 8% who disagreed; 78% of the respondents agreed that limited access to necessary technology infrastructure poses a barrier to the effective utilisation of AI packages for learning assessment. While 22% disagreed, 93% of the respondents agreed that resistance to change among educators and stakeholders inhibits the successful implementation of AI in learning assessment, as 7% of the students disagreed. The highest mean score of 3.56 shows a consensus that insufficient training and professional development hinder effective AI implementation. The criterion mean of 3.41 highlights notable challenges in using AI for learning assessments. The finding indicated several challenges and barriers that impede the effective utilisation of artificial intelligence for the assessment of students at Lagos State University of Education, which include resistance to change among lecturers and stakeholders toward adopting new technology, lack of standardisation to the AI implementation, shortage technical skills, infrastructure limitations, and lack of guidelines.

Discussion of Findings

Research Question 1: How accessible and suitable is AI in assessing learning at Lagos State University of Education (LASUED)? This revealed that the suitability and accessibility of AI-powered learning assessment systems go a long way to further improve the learning content of learners in the Lagos State University of Education. This outcome conforms with the study of Schicchi and Taibi (2024) who stated that innovative AI approaches, such as Automatic Text Simplification (ATS) and Automatic Text Complexity Evaluation (ATCE), are viable solutions to enhance inclusivity in education. By leveraging these technologies, educators can better address the diverse learning needs of students, ultimately fostering greater accessibility in the educational process. The study of Alper (2024) also agrees with the findings of the study, which noted that AI has shown potential suitability for assessment, but its effectiveness varies depending on the type of exam and the specific context. Akolokwu (2017) alluded that AI-powered systems showed a differential in their use as the users differ by suitability and

accessibility. They claimed that AI packages can be used in suitable circumstances like enhancing critical thinking skills, use of technology in teaching situations, high dependence on tech apps, and use of apps in paper writing and presentations, among others. Meanwhile, on its accessibility, they claimed that it can be used to identify scholarly works, aids in referencing of materials using the recent style, and depending on the package usage, it can be anchored on another sophisticated Edu-App.

Research Question 2: What is the impact of AI-enhanced learning analytics in assessing students' learning? In determining the impact of AI-enhanced learning analytics in assessing students' learning, it has been discovered that it further improves the quality of learning outcomes at the Lagos State University of Education. This outcome aligns with that of Mena-Guacas et al (2023), who claimed that it aids in content simplification, identification of appropriate teaching methodology to be adopted by the teacher in teaching, the specific objective to be measured, and the evaluation technique appropriate as well. They also claim that feedback from AI-powered assessment allows for timely intervention, support to struggling students, instrumental in helping students identify and address areas that need improvement; It has also positively influenced the overall quality and fairness of academic evaluations.

Research Question 3: What are the challenges and barriers that impede the effective utilisation of artificial intelligence for the assessment of students at the Lagos State University of Education?

The challenges and barriers that impede the effective utilisation of artificial intelligence packages for the learning assessment of students were revealed. The findings of this study corroborate with that of Owan, et. al (2023) who maintained that the advent of AI has come with challenges such as a lack of technically skilled personnel to maximise the package, the complex nature of the programme, its use in an educational programme, erratic power supply, pertaining to Nigeria particularly, among others. No doubt, the use of AI as a learning assessment instrument would certainly allow for a more clinical outcome due to the minimisation of all forms of human errors

associated with the use of the package. According to Owan, Abang, Idika and Bassey (2023), the use of AI gives room to identify numerous challenges associated with the use of AI packages, especially as it relates to learning assessment. Moreover, resistance to change among educators and stakeholders inhibits the successful implementation of AI in learning assessment. The lack of standardisation and guidelines for incorporating AI in learning assessment practices creates uncertainty and challenges in implementation.

Conclusion

Based on the findings, the majority of respondents agreed that AI-powered assessment tools are suitable and easily accessible for learning assessments at the Lagos State University of Education (LASUED). Respondents' significant positive responses have been highlighted by the high mean scores on the accessibility and suitability criteria. The majority of the respondents found AI-powered solutions to be adaptable and simple to use, meeting a range of academic requirements, including assessing students' strengths and weaknesses, supporting a variety of devices, and assisting with academic writing. These tools are regarded as fair and accurate, with students and educators trusting the AI's ability to adapt to different learning objectives and provide valuable insights for academic performance. This level of acceptance highlights AI's potential as a transformative tool for assessment in higher education, aligning with the institutional objectives of enhancing learning outcomes through innovative technologies. Despite these favourable perspectives, several challenges exist that hinder the efficient application of AI in learning assessment. One of the main barriers is the lack of professional development opportunities and training for educators, which restricts the potential for widespread adoption and efficient implementation of AI-driven assessment systems. Furthermore, there are challenges to successfully incorporating AI into current educational frameworks, such as a lack of standardised guidelines, high costs, and limited technology infrastructure. Resistance to change among some educators and stakeholders further complicates adoption efforts. Addressing these barriers is essential for leveraging

the full benefits of AI in learning assessment, as it will enable LASUED to maximise the technology's impact on student engagement and academic outcomes.

Recommendations

Based on the findings, the following are recommended:

1. Institutions should provide regular, hands-on training for academic staff to effectively use AI-powered assessment tools, such as workshops, certification programmes, and capacity-building programmes, to ensure that academic staff are equipped to integrate AI technologies into their assessment practices.
2. Institutions should consider transitioning mid-semester tests to AI platforms. This shift can offer timely, data-driven feedback for students and help lecturers assess learning outcomes more accurately.
3. Relevant stakeholders should invest in upgrading technological infrastructure and establish clear guidelines and standards for the use of AI in educational assessment. Such measures will address challenges related to accessibility and standardisation, paving the way for broader and more effective adoption of AI in learning environments.

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