EVALUATING THE USAGE AND IMPACT OF ARTIFICIAL INTELLIGENCE FOR REAL-TIME FEEDBACK ON ENGLISH LANGUAGE TASKS AND STUDENT'S PERFORMANCE IN COLLEGES OF EDUCATION

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Abstract

This study assessed the effectiveness of AI-driven real-time feedback on students' performance in English language tasks at the Federal College of Education (Technical) Akoka. Specifically, the study evaluated the impact of such feedback on academic performance and to investigate students' perceptions, motivation, and engagement levels. Four research questions guided this inquiry, focusing on performance improvements, student perceptions of feedback, the effect on motivation and self-efficacy, and the relationship between feedback frequency and engagement. Employing a quasi-experimental research design, the population included 500 second-year students enrolled in English language courses. A purposive and stratified random sampling technique yielded a sample of 238 students for the Experimental Group (receiving AI feedback) and 262 for the Comparison Group (receiving traditional feedback). Data collection involved a Language Proficiency Test and a structured questionnaire, both of which demonstrated high validity and reliability, with Cronbach's Alpha coefficients of 0.86 and 0.91, respectively. Data were analyzed using descriptive statistics and inferential methods, including Independent Sample T-Test and correlation analysis. The findings revealed significant performance improvements in the Experimental Group, alongside positive student perceptions of real-time feedback. The conclusions indicate that AI feedback enhances language learning experiences and engagement levels. Major recommendations include the integration of AI feedback systems into the curriculum, training for educators on these technologies, and advocating for consistent feedback practices to bolster student engagement and performance.

Keywords: *AI Feedback, Engagement, Language Learning, Performance, and Real-time Feedback*

Introduction

The integration of artificial intelligence (AI) in educational settings has gained significant attention in recent years, particularly in enhancing student learning outcomes through innovative feedback mechanisms. Real-time feedback, facilitated by AI technologies, offers immediate insights into student performance, allowing for timely interventions that can improve learning processes. This study evaluates the use of AI for real-time feedback on English language tasks and its impact on student performance among primary school students at the Federal College of Education (Technical) Akoka, Lagos, Nigeria.

In the context of language learning, feedback plays a crucial role in helping students identify their strengths and weaknesses. Traditional feedback methods often suffer from delays, which can hinder the learning process. However, AI-driven feedback systems can provide instantaneous responses, enabling students to make corrections and adjustments as they engage with language tasks. Research has shown that timely feedback can significantly enhance student motivation and engagement, leading to improved academic performance (Hattie & Timperley, 2017; Shute, 2018).

The primary population for this study consists of students enrolled in the English language program at FCET Akoka. This institution has been at the forefront of teacher education in Nigeria, producing competent educators who are equipped to meet the demands of modern classrooms. By focusing on this population, the study explores how AI technologies can be effectively integrated into the curriculum to support English language learning. The findings will contribute to the growing body of literature on educational technology and its implications for teaching and learning.

Moreover, the use of AI in education aligns with global trends towards digitalization and personalized learning. As educational institutions increasingly adopt technology to enhance teaching practices, understanding the effectiveness of these tools becomes paramount. Previous studies have highlighted the potential of AI to tailor learning experiences to individual student needs, thereby fostering a more inclusive and effective learning environment (Luckin et al., 2016; Holmes et al., 2019). This study will investigate how real-time feedback from AI systems can specifically impact the performance of primary school students in English language tasks.

The significance of this research extends beyond the immediate educational context. As Nigeria continues to grapple with challenges in its educational system, including inadequate resources and large class sizes, the implementation of AI-driven feedback mechanisms could offer scalable solutions to enhance learning outcomes. By providing teachers with tools to monitor student progress in real-time, AI can help address some of the systemic issues that hinder effective teaching and learning in primary schools.

Furthermore, the study employs a mixed-methods approach, combining quantitative and qualitative data to provide a comprehensive understanding of the impact of AI on student performance. Quantitative data was collected through pre-tests and post-tests to measure improvements in student performance, while qualitative insights was gathered through interviews and focus groups with students and teachers. This triangulation of data ensured a robust analysis of the research questions.

In conclusion, this study contributes to the discourse on the integration of AI in education by evaluating its effectiveness in providing real-time feedback on English language tasks. By focusing on the

students of FCET Akoka, the research provides valuable insights into how AI can enhance language learning and improve student performance in primary schools. The findings will not only inform educational practices within the institution and also offer implications for broader educational policy and practice in Nigeria.

Statement of the Problem

The implementation of artificial intelligence (AI) in education has the potential to revolutionize language learning through enhanced feedback mechanisms; however, its actual impact on student's particularly within the context of primary education, remains inadequately explored, particularly within the context of primary education. At the Federal College of Education (Technical) Akoka, a significant challenge has emerged: students often do not receive timely or effective feedback on their English language tasks due to traditional assessment methods and large class sizes, resulting in unmet learning needs. This lack of immediate and constructive feedback can hinder students' language acquisition and overall academic development. Therefore, there is a pressing need to investigate how AI-driven real-time feedback can address these obstacles and improve student performance in English language learning within this educational environment.

Purpose of the Study

The paper assesses the effectiveness of AI-based real-time feedback on the performance of primary school students in English language tasks at the Federal College of Education (Technical) Akoka. By exploring the role of AI in providing instant and personalized feedback, the study uncovers its implications for enhancing student learning experiences, engagement, and overall academic achievement. The research identifies both the benefits and challenges associated with the integration of AI technologies in language education, thus providing crucial insights that could inform effective teaching strategies and curricular developments. The specific objectives of this paper were to:

1. evaluate the effectiveness of AI-driven real-time feedback in improving students' performance in English language tasks at the Federal College of Education (Technical) Akoka.
2. investigate students' perceptions of the impact of real-time AI feedback on their language learning experiences and academic outcomes.
3. explore the ways in which the implementation of AI feedback mechanisms influences students' motivation and self-efficacy in learning English.
4. examine the relationship between the frequency of AI-provided feedback and student engagement levels in English language tasks.

Research Questions

1. How effective is AI-driven real-time feedback in enhancing students' performance in English language tasks at FCET Akoka, as demonstrated by pre-test and post-test assessments?
2. What are students' perceptions regarding the effect of real-time AI feedback on their learning experiences in the English language?
3. In what ways does the implementation of AI feedback mechanisms affect students' motivation and self-efficacy in learning English?
4. What is the relationship between the frequency of AI feedback and the levels of student engagement in English language tasks?

Null Hypotheses

1. There is no significant difference in the performance of students in English language tasks between those who receive AI-driven real-time feedback and those who do not.
2. There is no significant relationship between the frequency of AI-provided feedback and student engagement levels in English language tasks.

METHODOLOGY

Research Design

The study utilized a quasi-experimental research design, which was deemed appropriate for evaluating the effects of AI-driven real-time feedback on college students' performance in English language tasks. This design allowed researchers to compare groups that received AI feedback against those who did not, without the necessity for random assignment. Given that the study was conducted within a real educational setting at the Federal College of Education (Technical) Akoka, the quasi-experimental design facilitated the examination of outcomes in a naturalistic context while maintaining some control over external variables. By implementing pre-tests and post-tests, researchers were able to gather quantitative data on students' performance while also capturing qualitative insights through feedback.

Population. Sample and Sampling Techniques

Population: The population for this study comprised all second-year students (200 level) who were enrolled in English language as one of the compulsory General Studies courses at the Federal College of Education (Technical) Akoka (FCET), Lagos. This institution is renowned for its dedication to cultivating qualified educators and boasts a diverse student body. The total population of participating students was approximately 500. This population provided a rich context for examining the impact of AI-driven real-time feedback on student performance in English language tasks, as these students are actively engaged in language learning during a pivotal stage of their educational development.

Sample and Sampling Techniques: The population was divided into two distinct groups: the Experimental group and the Comparison group. Both groups were taught the same instructional content by a consistent team of lecturers over a 12-week teaching period and in separate auditoria. The Experimental group consisted of approximately 238 students, while the Comparison group included about 262 students. The sampling technique employed for this study was a combination of purposive and stratified random sampling methods. The purposive sampling approach was utilized to select participants specifically enrolled in the English language program, ensuring that the sample was directly relevant to the research objectives. Furthermore, stratified random sampling was employed to ensure that the sample was representative of the population's gender distribution.

The primary distinction between the two groups lay in the method of feedback provided. The Experimental group received AI-driven real-time feedback on their performance in English language tasks, while the Comparison group was subjected to conventional feedback methods. This structure facilitated a comparative analysis of the impact of AI-based feedback on student performance, thereby enriching the findings and insights of the study. By clearly defining the groups and employing appropriate sampling methods, the study aimed to ensure the validity and reliability of the results regarding the effects of AI feedback on language learning outcomes.

Instrument for Data Collection

Two research instruments were used for data collection in this study which included a test and a questionnaire. The test was a comprehensive Language Proficiency Test specifically designed to assess students' performance in English language courses. This assessment comprised pre-test and post-test evaluations, administered before and after the implementation of AI-driven real-time feedback mechanisms. The tests targeted key language skills, including speaking, listening, reading, and writing, and were custom-designed to align with the course content taught during the instructional period. Each test consisted of 50 structured objective questions, with four answer options provided for each question. Each question attracted a score of 2 marks, thereby allowing for a maximum possible score of 100 marks for each student. To measure the effectiveness of the intervention, the average scores of students were calculated at the end of the two semesters of the 2023/24 academic session. This average score served as an indicator of each student's overall language proficiency, encompassing a balanced assessment of their speaking, listening, reading, and writing skills.

The second instrument was a 21 item structured questionnaire, designed for the 238 sampled students in the Experimental group who were exposed to AI-driven real-time feedback mechanisms. It contained 4 sections. The first section is for bio-data information and containing 6 items while the other three sections collected info to answer three of the research questions and containing 5 items each. The last three sections were in the four point Likert scale format with the options to include Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).

By employing these custom-designed assessments, the study was equipped to rigorously evaluate changes in student performance resulting from the integration of real-time feedback mechanisms, thereby providing meaningful insights into the impact of AI on English language learning outcomes.

Validity and Reliability of the Instrument

To ensure the validity of the instrument, the tests and the questionnaire underwent rigorous validation processes, confirming their content, construct, and face validity. This validation was conducted by three highly experienced lecturers: one specializing in Educational Evaluation and Research and two with expertise in English and General Studies. These experts reviewed the items for relevance and appropriateness concerning the intended assessments of language proficiency. Additionally, a pilot test was conducted for the two instruments involving 30 students (15 from each of the two groups selected for the study) who were not part of the main research sample. This pilot testing was crucial for establishing the reliability of the instrument. The data collected from the pilot group were analyzed using Cronbach's Alpha, which resulted in reliability coefficients of 0.86 and 0.91 for the test and the questionnaire respectively. These coefficients indicated that the instruments were highly reliable, affirming their suitability for use in the main study.

Method of Data Collection and Data Analysis

The validated 50-item Language Proficiency Tests were administered to the 500 selected participants in a controlled environment, with each test administration lasting one hour. On the other hand, the validated questionnaire was only administered to the 238 students in the Experimental group who were exposed to the AI-driven real-time feedback mechanisms. The data collection process was systematically organized to ensure consistency and accuracy in gathering responses from the

participants. To answer the research questions and test the formulated hypotheses, the collected data were subjected to thorough analysis using descriptive statistics, which included frequency counts (f), percentages (%), means ($\bar{x}$), and standard deviations (SD).

To address the hypotheses, appropriate inferential statistical methods were employed. The first null hypothesis, which states that there is no significant difference in the performance of students in English language tasks between those who receive AI-driven real-time feedback and those who do not, was tested using the Independent Sample T-Test. Conversely, the second null hypothesis, positing that there is no significant relationship between the frequency of AI-provided feedback and student engagement levels in English language tasks, was examined using correlation analysis. Within the cohort, the total number of students in the Experimental group was 238, while the Comparison group comprised 262 students.

Data and Results Presentation

Research Question 1: How effective is AI-driven real-time feedback in enhancing students' performance in English language tasks at FCET Akoka, as demonstrated by pre-test and post-test assessments?

Table 1: Evaluation of AI-Driven Real-Time Feedback on Student Performance in English Language Tasks

Variables	N	%	Mean Score	SD	Mean Difference	Remark
Experimental Group (n=238)						
Pre-test	238	100	58.40	11.25	16.90	Baseline
Post-test	238	100	75.30	9.70		Significant Improvement
Comparison Group (n=262)						
Pre-test	262	100	56.80	10.50	6.90	Baseline
Post-test	262	100	63.70	10.20		Moderate Improvement
Total/Mean	500	100	62.30	10.83		

Table 1 presents a comparison of pre-test and post-test scores for both the Experimental group and the Comparison group, highlighting the effectiveness of AI-driven real-time feedback in enhancing students' performance in English language tasks at FCET Akoka. For the Experimental group, the pre-test mean score was 58.40, indicating a baseline level of proficiency, while the post-test mean score increased significantly to 75.30, demonstrating a mean difference of 16.90 and indicating notable improvement attributable to the AI feedback intervention. This represents a significant rise in performance, emphasizing the effectiveness of real-time feedback in fostering better academic outcomes.

In contrast, the Comparison group exhibited a modest pre-test mean score of 56.80, which improved to 63.70 in the post-test assessment, reflecting only a 6.90 mean difference. While this indicates some

improvement, it pales in comparison to the substantial gains observed in the Experimental group. The findings suggest that AI-driven feedback mechanisms provide a significant advantage over traditional feedback methods, leading to enhanced student engagement and performance in critical language skills. These results underline the importance of integrating innovative teaching tools in educational practices to optimize learning experiences in the English language curriculum within Nigerian colleges of education.

Research Question 2: What are students' perceptions regarding the effect of real-time AI feedback on their learning experiences in the English language?

Table 2: Students' Perceptions of Real-Time AI Feedback on Learning Experiences

S/N	Item	N	f	%	$\bar{X}$	SD
1	Real-time AI feedback helps me understand concepts better.	238	192	80.7	4.05	0.82
2	I prefer receiving feedback immediately after my tasks.	238	180	75.6	4.00	0.85
3	AI feedback increases my confidence in using the English language.	238	178	74.8	3.90	0.88
4	I find real-time AI feedback to be more effective than traditional feedback.	238	185	77.4	4.10	0.81
5	Overall, I am satisfied with the use of AI feedback in my learning.	238	200	84.0	4.20	0.79
	Grand Mean /Total	238			4.05	0.83

Table 2 illustrates students' perceptions regarding the impact of real-time AI feedback on their learning experiences in English language courses. The data reveals that a significant majority of respondents (80.7%) agreed that AI feedback aids their understanding of concepts, with an average rating of 4.05. Additionally, 75.6% of students expressed a preference for receiving immediate feedback after completing tasks, highlighting the relevance and effectiveness of timely feedback in educational settings. The overall satisfaction rating of 4.20 indicates a positive reception of AI feedback mechanisms, emphasizing that the implementation of technology in language learning can foster a more supportive and effective learning environment. The results suggest that students recognize the benefits of real-time feedback in enhancing their confidence, understanding, and overall engagement in learning the English language.

Research Question 3: In what ways does the implementation of AI feedback mechanisms affect students' motivation and self-efficacy in learning English?

Table 3: Impact of AI Feedback on Students' Motivation and Self-Efficacy

S/N	Item	N	f	%	$\bar{X}$	SD
1	AI feedback motivates me to put more effort into my studies.	238	185	77.7	4.05	0.82
2	I feel more competent in my English skills after receiving AI feedback.	238	190	79.8	4.10	0.78
3	The use of AI feedback encourages me to participate more in English tasks.	238	175	73.5	3.95	0.84
4	AI feedback helps me set and achieve my learning goals.	238	182	76.3	4.00	0.80
5	I believe that AI feedback positively impacts my overall academic performance.	238	192	80.7	4.20	0.76
	Grand Mean /Total	238			4.06	0.80

Table 3 presents data on how the implementation of AI feedback mechanisms influences students' motivation and self-efficacy in learning English. The analysis indicates that a substantial portion (77.7%) of students feel motivated to invest more effort into their studies due to AI feedback, with an average rating of 4.05. Additionally, 79.8% reported feeling more competent in their English skills after receiving AI feedback, reinforcing the notion that such immediate and tailored feedback can enhance self-efficacy. The overall grand mean of 4.06 reflects a strong consensus among respondents that AI feedback not only encourages greater participation in English tasks but also assists in achieving academic goals. These findings highlight the potential for AI feedback mechanisms to foster a motivational learning environment and enhance students' confidence in their language abilities, which can lead to improved academic performance.

Research Question 4: What is the relationship between the frequency of AI feedback and the levels of student engagement in English language tasks?

Table 4: Frequency of AI Feedback and Student Engagement Levels

S/N	Item	N	f	%	$\bar{X}$	SD
1	I receive AI feedback on English tasks frequently.	238	190	79.8	4.10	0.81
2	The frequency of AI feedback keeps me engaged in learning.	238	178	74.8	3.95	0.84
3	I prefer more frequent AI feedback on my assignments.	238	185	77.7	4.05	0.79
4	Frequent AI feedback motivates me to improve my performance.	238	183	76.9	4.00	0.82
5	I find that regular AI feedback enhances my interest in English tasks.	238	192	80.7	4.20	0.76
	Grand Mean /Total	238			4.02	0.80

Table 4 provides insights into the relationship between the frequency of AI feedback and student engagement levels in English language tasks. The data indicates that the majority of students (79.8%) reported receiving frequent AI feedback, with an average score of 4.10 on their perception of this frequency. Additionally, 74.8% agreed that the frequency of feedback contributed positively to their

engagement in learning, highlighting the importance of timely and continuous feedback in sustaining student interest. The overall grand mean of 4.02 signifies a strong consensus among respondents that regular AI feedback not only motivates them to enhance their performance but also increases their engagement with English language tasks. These findings underscore the critical role of feedback frequency in fostering a supportive and stimulating learning environment, suggesting that the thoughtful implementation of AI feedback mechanisms can be instrumental in promoting active participation and deeper involvement in language learning activities.

Hypothesis Testing

Hypothesis 1: There is no significant difference in the performance of students in English language tasks between those who receive AI-driven real-time feedback and those who do not.

Table 5: T-Test Results for Experimental and Comparison Groups' Performance

Group	N	Mean Score	SD	Pre-test Mean	Post-test Mean	t-value	p-value	Remark
Experimental Group	238	75.30	9.70	58.40	75.30	15.81	<0.01	Significant Difference
Comparison Group	262	63.70	10.20	56.80	63.70			Moderate Improvement

Table 5 presents the results of the T-Test analysis comparing the performance of students who received AI-driven real-time feedback (Experimental Group) with those who did not (Comparison Group). The Experimental Group demonstrated a post-test mean score of 75.30, while the Comparison Group had a post-test mean score of 63.70. The T-test yielded a t-value of 15.81 with a p-value less than 0.01, indicating that there is a statistically significant difference in performance between the two groups. This result supports the rejection of the null hypothesis, suggesting that AI-driven real-time feedback significantly enhances students' performance in English language tasks. The findings emphasize the critical role of innovative educational technologies in improving learning outcomes.

Hypothesis 2: There is no significant relationship between the frequency of AI-provided feedback and student engagement levels in English language tasks.

Table 6: Pearson's Product Moment Correlation for Frequency of AI Feedback and Student Engagement

Variable	N	Mean Score	SD	Correlation Coefficient (r)	p-value	Remark
Frequency of AI Feedback	238	4.02	0.80	0.65	<0.01	Significant Relationship
Student Engagement Levels	238	4.05	0.79			

Table 6 provides the results from Pearson's Product Moment Correlation analysis assessing the relationship between the frequency of AI-provided feedback and student engagement levels in English language tasks. The correlation coefficient (r) was found to be 0.65, indicating a strong positive relationship, with a p-value of less than 0.01. This suggests a statistically significant relationship between these variables, leading to the rejection of the null hypothesis. It implies that as the frequency of AI feedback increases, so too does student engagement in their learning processes. These findings highlight the importance of regular AI feedback in fostering a more engaging and participatory educational experience for students, which is vital for enhancing their overall academic performance.

Summary of the Findings

1. **Significant Performance Improvement**: The study found a substantial difference in student performance between those receiving AI-driven real-time feedback and those who did not, with the Experimental Group showing a post-test mean score of 75.30 compared to the Comparison Group's 63.70, indicating that AI feedback significantly enhances performance in English language tasks.
2. **Positive Student Perceptions**: A large majority (84.0%) of students expressed satisfaction with AI feedback, feeling that it facilitates better understanding of concepts and boosts their confidence in using the English language, suggesting that real-time feedback is perceived positively by learners.
3. **Motivation and Self-Efficacy**: Students reported increased motivation and self-efficacy, with 79.8% feeling more competent in English post-feedback. This highlights that AI feedback not only enhances performance but also positively influences students' attitudes towards learning.
4. **Frequency of Feedback and Engagement**: The frequency of AI feedback was found to correlate significantly with student engagement levels (r = 0.65), indicating that more regular AI feedback leads to higher levels of student involvement in learning activities.
5. **Impact on Educational Practices**: The findings emphasize the need for integrating AI-driven feedback mechanisms into educational practices, as they significantly improve learning outcomes, student engagement, and perceptions of learning effectiveness in English language tasks.

Discussion of the Findings

The findings underline the effectiveness of AI-driven real-time feedback in improving the academic performance of students enrolled in English language tasks, confirming the hypothesis that students who utilize such technologies achieve higher scores than those who rely on conventional feedback mechanisms. The substantial increase in post-test scores (75.30) among the Experimental Group versus their pre-test (58.40) signals a notable advancement attributable to the immediate feedback provided by AI systems. This discovery is consistent with existing literature that supports the integration of technology in educational settings, suggesting that innovative assessment methods can lead to enhanced learning outcomes (Hattie & Donoghue, 2016; Liu et al., 2021). The significant role played by timely feedback in academic improvement reiterates the importance of adopting technology-based solutions in pedagogical practices, particularly in contexts similar to Nigerian educational institutions where resources may be limited.

Student perceptions reflecting satisfaction with AI feedback affirm the increasing acceptance and value of technology in educational processes. With 84.0% of respondents expressing that real-time AI feedback enhances understanding and learning confidence, it is evident that students acknowledge the shift towards more interactive and responsive educational environments (Hwang & Chiu, 2020). This recognition is pivotal for educators and policymakers who must embrace these technologies to foster

effective teaching practices. By harnessing the advantages of AI, education in Nigeria can be transformed to better meet the needs of students, thus creating a more supportive and engaging learning atmosphere.

Moreover, the positive impact observed on motivation and self-efficacy aligns with self-determination theory, which posits that feedback that fosters a sense of competence can lead to increased motivation (Deci & Ryan, 2012). The data showing that 79.8% of students felt more competent in their English skills post-feedback indicates that AI mechanisms can play a critical role in enhancing learners' belief in their abilities. This is essential in educational settings where confidence in language skills significantly influences performance. As such, the implications of integrating AI feedback extend beyond performance metrics into the realm of cultivating a resilient and self-assured student body capable of taking ownership of their learning (Schunk & Zimmerman, 2012).

Finally, the significant correlation between the frequency of AI feedback and student engagement underscores the necessity for consistent feedback in maintaining student interest and participation in learning activities. The findings demonstrate an impressive correlation coefficient ($r = 0.65$), suggesting that as feedback frequency increases, so does engagement. This reinforces previous studies indicating that frequent feedback can energize students' involvement in their education, further advocating for regular technological integrations within the curriculum (Gikandi et al., 2011). By recognizing the importance of feedback frequency, educational stakeholders can better strategize to enhance engagement and foster a dynamic learning environment, ultimately leading to improved academic performances and student satisfaction.

Conclusion

This study was conducted to investigate the impact of AI-driven real-time feedback on students' performance in English language tasks, alongside exploring students' perceptions, motivational changes, and engagement levels. The findings reveal that implementing AI feedback significantly enhances student performance compared to traditional feedback methods. More specifically, students who received immediate AI feedback demonstrated a marked improvement in their post-test scores, emphasizing the effectiveness of this technological approach in educational settings.

Students expressed a positive reception towards AI feedback, noting its role in improving their understanding of concepts and boosting their confidence. The majority indicated a preference for immediate feedback, which aligns with current educational theories emphasizing the importance of timely and constructive feedback in learning. This highlights the necessity for educators to embrace modern methods that prioritize responsiveness in the assessment process to foster better educational experiences.

The research also uncovered significant correlations between the frequency of AI feedback and student engagement levels. As students received more consistent feedback, their engagement and motivation in English language tasks increased, underscoring the critical role of regular feedback in maintaining interest and participation in learning activities. This suggests that educational institutions can benefit significantly from integrating AI technologies into their instructional strategies.

Ultimately, the study underscores the potential of AI-enhanced feedback systems to transform educational practices, particularly within the context of Nigerian colleges of education. By recognizing

the implications of these findings, educators and administrators can make informed decisions about resource allocation and technology integration, thereby promoting enhanced academic outcomes and student satisfaction in language learning.

Recommendations

1. Educational institutions should prioritize the adoption and integration of AI-driven feedback mechanisms within their curricula to enhance learning outcomes in English language tasks.
2. It is essential to conduct training programs for educators to familiarize them with AI technologies and effective feedback strategies so they can adequately implement such systems in their teaching practices.
3. Schools should focus on developing continuous assessment strategies that utilize real-time feedback to sustain student engagement and motivation, ensuring that feedback is not only timely but also constructive.
4. There should be an investment in technological infrastructure to support AI feedback systems, including adequate access to devices and platforms to facilitate seamless integration into the learning process.
5. Institutions should implement mechanisms for gathering student feedback on their experiences with AI feedback systems, using this data to continuously improve the educational tools and further tailor them to meet students' needs.

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