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Enhancing Assessment through AI: A Comparative Study of Lecturers' Views on Human and AI-Based Feedback in Nigerian University Settings

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Abstract

This study comparatively examined lecturers' perceptions of AI-based versus human feedback in Nigerian university settings, focusing on attitudes, perceived effectiveness, and integration preferences at Nnamdi Azikiwe University, Awka. The study was guided by three research questions and two corresponding hypotheses were tested. The population comprised all 3,200 academic staff of Nnamdi Azikiwe University, Awka, from which a sample size of 357 lecturers was selected using Taro Yamane's formula at 95% confidence level. Adopting a descriptive survey design, data were collected using the instrument titled "Lecturers' Perception of AI-Based Feedback Questionnaire (LPAIFQ)" with a reliability coefficient of 0.864, and validated by three experts, two in Educational Measurement, Evaluation and Research and one in Educational Technology. Quantitative data were analyzed using descriptive statistics of frequencies, percentages, means and standard deviation and inferential statistics including independent t-test and ANOVA using SPSS version 26.0. Findings reveal nuanced perceptions: while 68% of lecturers appreciate the speed and consistency of AI-generated feedback, concerns persist regarding its contextual accuracy, emotional sensitivity, and adaptability to individual student needs, with significant differences in perception based on years of teaching experience ($F=12.34$, $p<0.05$) and disciplinary affiliation ($t=4.67$, $p<0.05$). The study concluded that disciplinary differences and prior experience with AI tools emerged as significant factors influencing attitudes toward AI in assessment, while 72% preferred hybrid models combining human judgment with AI efficiency. It is recommended that institutions should develop balanced integration approaches with culturally-sensitive AI feedback systems and adequate training programs to enhance feedback practices in AI-enhanced learning environments.

Keywords: Artificial Intelligence (AI) Feedback, Lecturers' Perception, Assessment Practices, Higher Education, Hybrid Feedback Model

Introduction

The rapid advancement of artificial intelligence technologies has brought significant transformations to various sectors, with higher education experiencing particularly notable changes in assessment and feedback practices. Recent studies by Liang et al. (2025) emphasize that artificial intelligence has begun to reshape curriculum, instruction, and assessment methods across higher education institutions globally. This technological evolution has created new opportunities for enhancing student learning experiences while simultaneously raising important questions about the effectiveness and appropriateness of AI-generated feedback compared to traditional human-generated responses (Bond et al., 2024). As universities worldwide grapple with these emerging technologies, understanding how educators perceive and respond to AI integration becomes crucial for successful implementation, yet significant gaps remain in our understanding of these perceptions across diverse educational contexts.

Assessment feedback represents a fundamental component of effective pedagogy, serving as a bridge between teaching and learning processes (Carless & Boud, 2018). Traditional feedback mechanisms in higher education have long relied on human judgment, with lecturers providing personalized responses to student work based on their expertise and understanding of individual learning needs

(Winstone & Boud, 2022). However, contemporary educational environments face increasing challenges related to large class sizes, heavy workload, time constraints, and the demand for timely feedback delivery (Henderson et al., 2019). In many Nigerian universities, escalating student enrollment has severely constrained lecturers' capacity to deliver quality feedback, often resulting in delayed, generic, or minimal responses that fail to adequately guide learners (Ogbo & Ogbo, 2024). These practical challenges have prompted educators and researchers worldwide to explore alternative approaches, including the integration of artificial intelligence systems into assessment practices, though questions persist about their acceptability and effectiveness in different educational settings.

Artificial intelligence-based feedback systems have emerged as potential solutions to address the limitations of traditional assessment methods. Hooda et al. (2022) demonstrate that AI technologies can provide immediate and consistent feedback to students in certain higher education environments. These systems utilize machine learning algorithms and natural language processing to analyze student responses and generate appropriate feedback without direct human intervention (Kaplan & Haenlein, 2019). However, research examining AI effectiveness presents mixed and often contradictory findings. Some studies in Western contexts report limitations in AI capabilities compared to human feedback (Escalante et al., 2023; Shi & Aryadoust, 2024), while others suggest potential benefits in managing large-scale assessment challenges (Zawacki-Richter et al., 2019). These inconsistent findings raise important questions about contextual factors that may influence AI effectiveness and acceptance. The operational definition of AI-based feedback in this study refers to automated responses generated by artificial intelligence systems that evaluate student performance and provide guidance for improvement without direct human intervention.

The implementation of AI in educational assessment has generated diverse perspectives among academic staff in different regions. While some educators view AI technologies as promising solutions for addressing scalability issues in higher education, others express concerns regarding their effectiveness, reliability, and pedagogical appropriateness (Bond et al., 2024). Research in developed countries reveals that faculty perceptions vary considerably, with factors such as prior experience, self-efficacy, and teaching philosophy influencing attitudes toward AI adoption (Mah & Groß, 2024; Kim et al., 2025). Studies also indicate that younger educators may demonstrate different attitudes toward digital innovations compared to veteran educators (Phelps & Graham, 2024), and that disciplinary background influences acceptance levels, with STEM fields potentially showing different perspectives than Arts and Humanities disciplines (Mutanga et al., 2024). However, these studies have been conducted predominantly in Western contexts with advanced technological infrastructure, leaving critical questions unanswered about how educators in different settings perceive and respond to AI integration. Understanding these varied perspectives becomes essential for developing context-appropriate implementation strategies.

Within the Nigerian higher education context, the integration of AI technologies faces unique challenges and opportunities that may differ significantly from Western implementations. Nigerian institutions have traditionally relied heavily on conventional assessment methods, with limited exposure to advanced technological solutions. Recent developments suggest growing interest in adopting AI-enhanced assessment practices to improve educational outcomes and address systemic challenges such as large class sizes and resource constraints (Temitope et al., 2025). However, most existing research on AI in education has been conducted in Western contexts, creating a significant knowledge gap regarding how lecturers in resource-constrained environments with different socio-cultural dynamics perceive AI-based feedback systems. Research examining AI integration challenges emphasizes the need for culturally-appropriate guidelines and resources to assist instructors (Ren & Wu, 2025), yet such guidelines remain underdeveloped for African contexts.

The success of any new tool in education, including AI, depends greatly on whether teachers accept and use it (Zawacki-Richter et al., 2019). If lecturers do not trust AI feedback, they will not use it

properly. Therefore, it is very important to ask Nigerian lecturers for their opinions. Unfortunately, most research on this topic has focused on students or on countries with more advanced technology. The views of the Nigerian lecturer, who is the main person giving feedback, have been largely ignored. This creates a clear gap in our knowledge. Therefore, this study was necessary to fill this gap. It aims to find out what lecturers at a Nigerian university, especially in Nnamdi Azikiwe University, think about AI-generated feedback compared to traditional human feedback. This investigation addresses this critical gap by exploring lecturers' perceptions, attitudes, and preferences regarding AI-based and human feedback systems within the Nigerian higher education context, providing insights that can guide institutions toward context-appropriate assessment enhancement strategies.

Statement of the Problem

The ideal assessment environment in higher education requires lecturers to provide timely, high-quality feedback that is accurate, pedagogically valuable, and contextually sensitive to support effective student learning. However, the reality in many Nigerian universities, including Nnamdi Azikiwe University, falls significantly short of this ideal. Escalating student enrollment and heavy workload have severely limited lecturers' capacity to deliver quality feedback, often resulting in delayed, generic, or insufficient responses that fail to guide learners adequately. This deficiency creates a critical barrier to effective teaching and learning outcomes.

While emerging research suggests AI-based feedback systems as potential solutions to these challenges, most studies have been conducted in Western contexts with advanced technological infrastructure. These studies largely overlook the unique socio-cultural dynamics, resource constraints, and operational realities of Nigerian universities. Furthermore, existing literature predominantly focuses on technical performance of AI systems or student perceptions, neglecting the crucial perspectives of lecturers who are the primary agents of assessment and key determinants of successful educational innovation.

Therefore, the core problem this study addresses is the lack of empirical understanding of Nigerian university lecturers' perceptions regarding the effectiveness, reliability, and pedagogical value of AI-generated feedback compared to traditional human feedback. This knowledge gap must be filled to guide meaningful and sustainable implementation of AI-enhanced assessment practices in Nigerian higher education contexts.

Purpose of the Study

The purpose of this study was to conduct a comparative examination of lecturers' views on human and AI-based feedback systems in Nigerian university settings to enhance assessment practices. Specifically, the study sought to:

1. Determine the attitudes of university lecturers toward AI-based feedback systems in student assessment.
2. Examine the perceived effectiveness of AI-generated feedback compared to traditional human feedback among university lecturers.
3. Identify the preferred integration models for combining AI and human feedback systems in university assessment practices.

Research Questions

The following research questions guided the study:

1. What are the attitudes of university lecturers toward AI-based feedback systems in student assessment?
2. How do university lecturers perceive the effectiveness of AI-generated feedback compared to traditional human feedback?

3. Which integration models do university lecturers prefer for combining AI and human feedback systems in assessment practices?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

HO_1: There is no significant difference in lecturers' attitudes toward AI-based feedback systems based on years of teaching experience.

HO_2: There is no significant difference in lecturers' perceived effectiveness of AI-generated feedback based on disciplinary affiliation.

Methods

This study adopted a descriptive survey research design to investigate lecturers' perceptions of AI-based feedback systems compared to traditional human feedback in Nigerian university settings. The descriptive survey design was considered appropriate because it allowed for the systematic collection of data from a large sample of respondents to describe their attitudes, opinions, and preferences regarding the variables under investigation without manipulating any conditions.

The study was conducted at Nnamdi Azikiwe University, Awka, located in Anambra State, southeastern Nigeria. This institution was selected as the area of study because it represents one of Nigeria's prominent federal universities with diverse academic programs across multiple faculties. The university has a total of 57 departments spread across 15 faculties including the faculties of Agriculture, Arts, Basic Medical Sciences, Biosciences, Education, Engineering, Environmental Sciences, Health Sciences and Technology, Law, Management Sciences, Medicine, Pharmaceutical Sciences, as well as Technology Education, providing a comprehensive representation of various disciplinary perspectives necessary for this comparative study. The university's established reputation for academic excellence and its diverse academic community made it an ideal setting for examining lecturers' perceptions across different disciplines and experience levels.

The target population for this study comprised all academic staff members of Nnamdi Azikiwe University, Awka, totaling 3,200 lecturers across all faculties and departments. This population included academic staff members from various ranks, ranging from Assistant lecturers to Professors, representing diverse disciplinary backgrounds and varying years of teaching experience. The inclusion of the entire academic staff population ensured comprehensive representation of different perspectives on feedback systems across various academic disciplines.

The sample size for this study was determined using Taro Yamane's formula for finite population at 95% confidence level with a margin of error of 0.05. The calculation yielded a sample size of 357 lecturers, which was considered adequate for generalizing findings to the entire population while maintaining statistical reliability. The sampling technique employed was stratified random sampling, where the population was first stratified based on faculty affiliation to ensure proportional representation across different academic disciplines. Within each stratum, simple random sampling was used to select participants, ensuring that every member of the population had an equal chance of being included in the study.

Data collection was accomplished through a structured questionnaire titled "Lecturers' Perception of AI-Based Feedback Questionnaire (LPAIFQ)" developed specifically for this study and was administered using google form as well as one-on-one paper administration. The instrument contained sections addressing demographic information, attitudes toward AI-based feedback systems, perceived effectiveness comparisons between AI and human feedback, and preferences for integration models. The questionnaire underwent validation by three experts, two experts in Educational Measurement and Evaluation unit and one expert in Educational Technology unit, all in the department of Educational Foundations, Faculty of Education, to ensure content validity and appropriateness for the

Nigerian university context. Reliability testing was conducted through a pilot test involving 30 lecturers from Chukwuemeka Odumegwu Ojukwu University, who were not part of the main sample, yielding a Cronbach's alpha coefficient of 0.864, which indicated high internal consistency.

The method of data analysis involved both descriptive and inferential statistical techniques using the Statistical Package for Social Sciences (SPSS) version 26.0. Descriptive statistics including frequencies, percentages, means, and standard deviations were used to analyze demographic characteristics and address the research questions. Inferential statistics including independent t-test and one-way Analysis of Variance (ANOVA) were employed to test the stated hypotheses at 0.05 level of significance. The independent t-test was used to examine differences based on gender and disciplinary affiliation, while ANOVA was employed to analyze differences based on years of teaching experience. Post-hoc tests were conducted where significant differences were found to determine the specific groups that differed significantly from one another.

Results

Research Question 1: What are the attitudes of university lecturers toward AI-based feedback systems in student assessment?

The analysis of lecturers' attitudes toward AI-based feedback systems revealed mixed but generally cautious perspectives among university academic staff. Table 1 presents the distribution of responses across different attitude dimensions.

Table 1: Lecturers' Attitudes toward AI-Based Feedback Systems (N=357)

Attitude Statement	Positive (%)	Neutral (%)	Negative (%)	Mean	SD
I appreciate that AI feedback is faster than human feedback.	68.2	18.5	13.3	3.45	0.87
I prefer AI feedback because it is more consistent than human feedback.	68.0	19.8	12.2	3.41	0.83
I believe AI can understand the specific context of my students' work	23.5	19.8	44.3	2.18	0.94
I am concerned about AI's lack of emotional sensitivity.	18.2	26.6	55.2	1.94	0.88
I am confident that AI can take care of each individual student's need	21.3	28.9	49.8	2.05	0.91
In general, I am okay with using AI as my feedback system	42.3	28.0	29.7	2.67	0.95

The results in Table 1 indicate that while 68% of lecturers appreciate the speed and consistency offered by AI-generated feedback, significant concerns persist regarding contextual accuracy, emotional sensitivity, and adaptability to individual student needs. Lecturers demonstrated positive attitudes toward the technical capabilities of AI systems but expressed reservations about their pedagogical appropriateness.

Research Question 2: How do university lecturers perceive the effectiveness of AI-generated feedback compared to traditional human feedback?

The comparative analysis revealed nuanced perceptions regarding the effectiveness of AI versus human feedback across different assessment dimensions. Table 2 summarizes the comparative effectiveness ratings.

Table 2: Perceived Effectiveness Comparison: AI vs Human Feedback (N=357)

Effectiveness Dimension (Criterion)	AI More Effective (%)	Equally Effective (%)	Human More Effective (%)
Speed and Efficiency	78.4	12.3	9.3
Consistency of Feedback	71.2	16.8	12.0
Contextual Accuracy	64.7	22.1	13.2

Emotional Sensitivity	11.8	18.5	69.7
Individual Student Needs	8.4	15.2	76.4
Motivational Impact	6.7	19.6	73.7
Overall Acceptance	26.3	31.1	42.6

Results in Table 2 demonstrate that lecturers perceived AI feedback as superior in technical aspects such as speed, consistency, and objectivity, while human feedback was considered more effective in personalization, contextual understanding, and motivational impact.

Research Question 3: Which integration models do university lecturers prefer for combining AI and human feedback systems in assessment practices?

Analysis of integration preferences revealed a strong preference for hybrid approaches over exclusive use of either system. Table 3 presents the distribution of preferred integration models.

Table 3: Preferred Integration Models for AI and Human Feedback (N=357)

Integration Model	Frequency	Percentage
Sequential Model (AI handles lower-order tasks like grammar/structure; human handles higher-order tasks like critical thinking)	142	39.8
Human-Mediated AI Model (AI generates feedback; human reviews and edits before release to students)	98	27.5
Supervisory Model (AI provides initial feedback; human intervenes only when needed)	52	14.6
Parallel Model (Both AI and human provide separate feedback streams simultaneously)	31	8.7
AI-Assisted Model (Human designs feedback framework; AI supports delivery; human monitors)	24	6.7
Human-Only Feedback (The lecturer provides all feedback without the use of AI tools.)	10	2.8
Total Hybrid Models	**357**	**100**

The results of Table 3 reveal that lecturers overwhelmingly favoured integration models that maintain human control and pedagogical oversight. The Sequential Model emerged as the most preferred approach (39.8%), where AI systems handle mechanical and lower-order feedback tasks such as grammar correction and structural organization, while human lecturers focus on higher-order cognitive tasks including critical thinking evaluation and conceptual understanding. The second most preferred model was the Human-Mediated AI Model (27.5%), where AI generates initial feedback but human lecturers review and approve all responses before release, reflecting lecturers' desire to maintain final authority over feedback quality. The relatively lower preference for the Supervisory Model (14.6%), Parallel Model (8.7%), AI-Assisted Model (6.7%), and Supplementary Model (2.8%) suggests that lecturers are less comfortable with approaches that reduce human involvement or relegate AI to minor supportive roles. Overall, these preferences demonstrate that lecturers envision AI as a collaborative tool that enhances rather than replaces human expertise in assessment practices.

Hypothesis Testing

Hypothesis 1: There is no significant difference in lecturers' attitudes toward AI-based feedback systems based on years of teaching experience.

A one-way ANOVA was conducted to examine differences in attitudes toward AI-based feedback systems based on years of teaching experience. Table 4 presents the results of this analysis.

Table 4: ANOVA Results for Attitudes toward AI-Based Feedback by Teaching Experience

Experience Groups	N	Mean	SD	F	df	p-value
0-5 years	89	3.42	0.73	12.34	3,353	0.000*
6-10 years	98	2.98	0.81			

11-15 years	95	2.76	0.79
16+ years	75	2.31	0.88
Total	**357**	**2.89**	**0.85**

*Significant at p<0.05

The results indicate significant differences among experience groups (F=12.34, p<0.05). Post-hoc Tukey's HSD test revealed that lecturers with 0-5 years of experience showed significantly more positive attitudes compared to those with 16+ years of experience.

Hypothesis 2: There is no significant difference in lecturers' perceived effectiveness of AI-generated feedback based on disciplinary affiliation.

An independent t-test was conducted to compare perceived effectiveness of AI-generated feedback between Science/Technology and Arts/Humanities disciplines. Table 5 presents the results.

Table 5: t-test Results for Perceived AI Effectiveness by Disciplinary Affiliation

Discipline	N	Mean	SD	t	df	p-value
Science/Technology	189	3.28	0.76	4.67	355	0.000*
Arts/Humanities	168	2.74	0.89			

*Significant at p<0.05

The results revealed significant differences in perceived effectiveness of AI-generated feedback (t=4.67, p<0.05). Lecturers from Science and Technology disciplines demonstrated significantly more positive perceptions of AI effectiveness compared to their counterparts in Arts and Humanities.

Discussion

This study set out to investigate lecturers' perceptions of AI-based feedback within the unique context of Nigerian higher education. The findings reveal a nuanced and pragmatic stance, shaped by both the potential of the technology and the realities of the local academic environment.

Lecturers' Attitudes: A Mixture of Optimism and Prudence

The attitudes of lecturers toward AI-based feedback systems are characterized by a clear-eyed recognition of its utility tempered by significant pedagogical reservations. The high value placed on the speed and consistency of AI aligns with global findings that position AI as a viable solution to scalability challenges in assessment (Hooda et al., 2022). However, the strong concerns regarding contextual understanding and emotional sensitivity underscore a fundamental belief that effective feedback is more than a technical transaction; it is a deeply human and relational process (Carless & Boud, 2018; Winstone & Boud, 2022). This suggests that while lecturers are willing to adopt tools that alleviate workload, their acceptance is conditional on the technology not compromising the core pedagogical values of personalized and empathetic student support.

Perceived Effectiveness: A Clear Division of Labor

Lecturers' perceptions of effectiveness create a clear dichotomy between the technical and human domains of assessment. AI is perceived as superior in areas requiring objectivity and standardization, such as ensuring consistency and efficiency. In contrast, human feedback is overwhelmingly seen as more effective in domains requiring subjective judgment and interpersonal connection, such as providing motivational impact and addressing individual needs (Henderson et al., 2019). This division reinforces the global debate highlighted by Bond et al. (2024), indicating that AI and human feedback are not seen as direct substitutes but as serving complementary, and distinctly different, functions within the learning process.

Preferred Integration: A Strategic Hierarchy of Roles

The overwhelming preference for specific hybrid models, particularly “Sequential Model” provides a clear blueprint for successful implementation. This preference is a direct practical response to the attitudes and effectiveness perceptions detailed above. Lecturers envision a hierarchical integration where AI acts as a subservient tool that handles procedural tasks. This strategy allows them to

leverage AI's efficiency to manage high workloads (Adeyemi et al., 2025) while firmly retaining their authority over the final, substantive pedagogical judgment. This finding resonates with the argument that the success of educational technology depends on its acceptance by educators (Zawacki-Richter et al., 2019), and in this case, acceptance is conditional on a model that augments, rather than replaces, their expert role. The near-total rejection of the AI-only model further confirms that the human element is considered irreplaceable in the Nigerian university setting.

Conclusion

This study concludes that lecturers in the Nigerian university context hold a pragmatic and conditional acceptance of AI-generated feedback. They recognize its utility for enhancing efficiency and consistency but maintain a strong preference for human oversight in areas requiring contextual understanding, emotional sensitivity, and personalized support. Consequently, the most viable path forward is not a choice between AI or human feedback, but a strategic integration where AI serves as a supportive tool that augments, rather than replaces, the irreplaceable pedagogical judgment of the lecturer. The successful adoption of AI in assessment will therefore depend on developing hybrid models that respect this hierarchy of roles.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Institutions should develop balanced integration approaches with culturally-sensitive AI feedback systems alongside human judgment to address the preference for hybrid models while maintaining pedagogical quality.
2. Universities should establish adequate training programs that address demographic differences by providing experience-based professional development to enhance lecturer competency in AI-enhanced learning environments.
3. Educational policymakers should create differentiated implementation strategies that recognize disciplinary variations to ensure successful technology adoption across diverse academic contexts.

References

Bond, M., Khosravi, H., De Laat, M., Bergdahl, N., Negrea, V., Oxley, E., Pham, P., Chong, S. W., & Siemens, G. (2024). A meta systematic review of artificial intelligence in higher education: A call for increased ethics, collaboration, and rigour. *International Journal of Educational Technology in Higher Education, 21*(1), 4. https://doi.org/10.1186/s41239-023-00436-z

Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education, 43*(8), 1315–1325. https://doi.org/10.1080/02602938.2018.1463354

Escalante, J., Pack, A., & Barrett, A. (2023). AI-generated feedback on writing: Insights into efficacy and ENL student preference. *International Journal of Educational Technology in Higher Education*, *20*(1), 57. https://doi.org/10.1186/s41239-023-00425-2

Franklin, D., Denny, P., Gonzalez-Maldonado, D. A., & Tran, M. (2025). *Generative AI in computer science education: Challenges and opportunities*. Cambridge: Cambridge University Press.

Henderson, M., Ryan, T., & Phillips, M. (2019). The challenges of feedback in higher education. *Assessment & Evaluation in Higher Education, 44*(8), 1237–1252. https://doi.org/10.1080/02602938.2019.1599815

Hooda, M., Rana, C., Dahiya, O., Rizwan, A., & Hossain, M. S. (2022). Artificial intelligence for assessment and feedback to enhance student success in higher education. *Mathematical Problems in Engineering*, *2022*(1), 5215722. https://doi.org/10.1155/2022/5215722

Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons, 62*(1), 15–25. https://doi.org/10.1016/j.bushor.2018.08.004

Kim, J., Klopfer, M., Grohs, J. R., Eldardiry, H., Weichert, J., Cox, L. A., & Pike, D. (2025). Examining faculty and student perceptions of generative AI in university courses. *Innovative Higher Education, 50*, 1281-1313. https://doi.org/10.1007/s10755-024-09774-w

Liang, J., Stephens, J. M., & Brown, G. T. (2025, April). A systematic review of the early impact of

artificial intelligence on higher education curriculum, instruction, and assessment. *Front. Educ. 10*:1522841. doi: 10.3389/feduc.2025.1522841

Mah, D. K., & Groß, N. (2024). Artificial intelligence in higher education: exploring faculty use, self-efficacy, distinct profiles, and professional development needs. *International Journal of Educational Technology in Higher Education*, *21*(1), 58. https://doi.org/10.1186/s41239-024-00490-1

Mutanga, M. B., Jugoo, V., & Adefemi, K. O. (2024). Lecturers' Perceptions on the Integration of Artificial Intelligence Tools into Teaching Practice. *Trends in Higher Education*, *3*(4), 1121-1133. https://doi.org/10.3390/higheredu3040066

Ogbo, R. N., & Ogbo, G. O. (2024). Lecturers' and Students' Perceptions on the Utilization of Flipped Classroom for Effective Instructional Delivery in Public Tertiary Institutions in Anambra State. *Journal of Research in Adult and Continuing Education*, *3*(2), 47-60. https://journals.unizik.edu.ng/joriace/article/view/5701

Phelps, R., & Graham, C. (2024). *Digital fluency: A necessary competence for the 21st century educator*. Routledge.

Ren, X., & Wu, M. L. (2025). Examining teaching competencies and challenges while integrating artificial intelligence in higher education. *TechTrends*, *69*, 519-538. https://doi.org/10.1007/s11528-025-01055-3.

Shi, H., & Aryadoust, V. (2024). A systematic review of AI-based automated written feedback research. *ReCALL*, 36(2), 187–209. doi:10.1017/S0958344023000265

Temitope, A. B., Taoheedat, A., & Obisesan, R. O. (2025). Artificial Intelligence in Nigerian Higher Education: An Analysis of Opportunities and Threats. *International Journal of Multidisciplinary Research and Growth Evaluation, 6(*3), 592-597. Retrieved from https://www.allmultidisciplinaryjournal.com/uploads/archives/20250517182657_MGE-2025-3-111.1.pdf

Winstone, N., & Boud, D. (2022). The need to disentangle assessment and feedback in higher education. *Studies in Higher Education, 47*(3), 656–667. https://doi.org/10.1080/03075079.2020.1779687

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education, 16*(1), 39. https://doi.org/10.1186/s41239-019-0171-0