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ENHANCING TRANSPARENCY AND ACCOUNTABILITY IN AI-POWERED CLASSROOM ASSESSMENT: PERSPECTIVES FROM HIGHER EDUCATION STUDENTS

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ABSTRACT
The increasing integration of artificial intelligence (AI) in education raises concerns about transparency and accountability in AI-driven assessments, particularly in developing regions. This study explores higher education students' perspectives on these issues by survey. The objective is to examine students' attitudes toward AI assessment tools and their perceived implications for fairness and reliability. The methodology involves a survey analysing student experiences with AI tools like ChatGPT, Google Gemini, and Ask AI. Findings indicate that students frequently and confidently use these tools for formative assessments due to their accessibility. Latent profile analysis reveals distinct patterns in student attitudes, ranging from scepticism and caution to optimism and strong support for transparent and accountable AI assessments. Furthermore, student cohorts vary from those with minimal AI exposure to proficient AI users. The study highlights the importance of addressing these differences by ensuring equitable access, providing comprehensive training, and fostering clear communication about AI-driven evaluations. The conclusion emphasises the necessity of implementing fair and responsible AI assessment practices to accommodate diverse student needs. These findings have significant implications for higher education institutions, educators, and policymakers in designing ethical AI frameworks prioritising student trust and academic integrity.

Keywords: AI models, transparency, accountability, higher education students, global south

INTRODUCTION

Artificial Intelligence (AI) is a trainable and predictive smart model that adhere to specific logic based on relevant data. Over the past three decades, AI has been increasingly integrated into various aspects of our lives, significantly impacting education (Baidoo-Anu & Ansah, 2023). In higher education, AI is highly valued for its diverse applications. Memarian and Doleck (2023) argue that AI is used for adaptive learning, assessment, student admissions, and recruitment. Bozkurt et al. (2021) state that AI specifically supports pedagogical practices through personalized teaching and learning, feedback mechanisms, and decision-making processes.

Although AI offers significant benefits to education, unresolved complexities persist, notably regarding its ethical, accountable, and transparent use (Holmes et al., 2021). Questions pertaining to the ethics of AI stem from its data mining practices, which can impact the delivery of education. Kim et al. (2020) emphasizes that flawed data or logic may adversely affect the quality of teaching and learning. This raises concerns about the integrity of AI and portraying it as a 'black box' that requires transparency for users to trust its processes.

AI accountability and transparency have been widely recognized as important principles for the development and use of AI. For AI to be accountable, it should ensure clear mechanisms for assigning responsibility and providing redress when AI systems cause harm. Transparency in AI enables individuals to comprehend how AI systems function and make decisions that impact their lives (Cheong, 2024; Felzmann et al., 2020; Novelli et al., 2023). For example, Cheong (2024) argue that both principles are essential in AI to build trust, uphold ethical standards, adhere to legal requirements, and enhance safety and reliability. Adhering to these principles ensures that AI systems align with societal norms and mitigate potential risks associated with their implementation. However, integrating these fundamental principles has proven challenging within the context of balancing other factors, such as privacy concerns.

AI transparency and accountability is vital, especially in classroom assessment. Black and Wiliam (2018) stress that classroom assessment allows educators to evaluate, measure, and document students' learning progress. Given the crucial role of classroom assessment, it is imperative that the integration of AI in classroom assessment prioritizes fairness and addresses potential biases. A comprehensive understanding of how AI algorithms determine assessment outcomes is crucial to foster trust. AI-driven assessment systems must actively work to prevent discrimination among students and comply with institutional regulations. Ensuring the precision of AI-driven assessment calls for a deep understanding of data sources and decision-making processes.

However, discussing transparency and accountability in AI and classroom assessment has neglected the global south, where access to AI models is constrained by digital disparities, low levels of digital literacy, and accessibility challenges (Landa et al., 2020). Also, previous investigations on transparency and acceptability of AI have primarily focused on systematic reviews and did not specifically address classroom assessment (e.g., Baidoo-Anu et al., 2024; Cheong, 2024; Licht & Licht, 2020; Memarian & Doleck, 2023; Smith 2021).

With limited quantitative evidence in the literature on users' views regarding AI transparency and accountability in classroom assessment, particularly in the global south, this study aims to explore the perspectives of higher education students' perspectives on transparency and accountability in AI-driven assessments. The following research question guided this study: What perspectives do higher education students have about transparency and accountability in AI-driven classroom assessments?

METHODS

Data collection and sampling

A cross-sectional electronic survey was conducted among higher education students from Ghana and Nigeria to explore their perspectives

on AI transparency and accountability in classroom assessments. The survey used snowball and convenience sampling methods, with survey links distributed through platforms such as WhatsApp, Facebook, and Twitter. Prior to participating, individuals were provided with consent forms and study details to ensure informed consent. Participant confidentiality and anonymity were preserved by refraining from disclosing any names or identities.

Participants

The precipitants involved 209 Ghanaian (n = 106) and Nigerian (n = 103) higher education students. As shown in Table 1 in appendix 1, students are predominantly male (Ghana = 74.5%) and (Nigerian = 63.1%). Both groups are highly involved in science education compared to other subjects with 24.5% in Ghana and 37.9% in Nigeria. Also, 61.3% of Ghanaian students and 68.0% of Nigerian students are from urban areas. The use of AI tools reveals that 44.3% of Ghanaian students and 61.2% of Nigerian students use ChatGPT, with increased usage of Google Gemini and Ask AI in Nigeria.

Regarding the frequency of AI use, 30.2% of Ghanaian students use AI "always" compared to 40.8% of Nigerian students. Most students from both countries use AI for formative assessments, but Nigerian students also use it more frequently for both formative and summative assessments. 67.9% of Ghanaian students find their AI tools adequate and available, while 56.3% of Nigerian students feel the same. Competency-wise, 24.5% of Ghanaian students consider themselves "very competent" with AI tools compared to 31.1% of Nigerian students. While both groups are engaged with AI tools, Nigerian students report higher regular use, better competency, and varied tool usage compared to their Ghanaian counterparts.

Instrument

A questionnaire was used to collect data on the perspectives of higher education students on transparency and accountability in AI-driven classroom assessments. The same questionnaire was given to students from Ghana and Nigeria. The first section asked students for their demographic information (Appendix 1, Table 1). ChatGPT 4 was used to create statements in the second and third sections. The second section focused on students' opinions on transparency and accountability in AI-driven classroom assessments, with the prompt "create statements that inquire about higher education students' views on transparency and acceptability in AI-driven assessment practices in the classroom." The third section centered on students' suggestions for improving transparency and accountability in AI-driven assessments, with the prompt "Create statements on the suggestions of higher education students to enhance transparency and accountability in AI-driven assessments."

The second section comprised 16 statements, while the third section had eight items. Responses in both sections were assessed on a four-point scale from 1 – strongly disagree to 4 – strongly agree. To enhance the reliability and validity of the generated statements, an exploratory factor analysis (EFA) using principal component analysis (PCA) and Monte Carlo PCA for parallel analysis were conducted. The specifics of the EFA analysis are provided in the data analysis section.

Data analysis

The data analysis initially involved conducting an exploratory factor analysis (EFA) in SPSS, followed by a latent profile analysis (LPA) in MPLUS. The EFA on AI-driven assessments identified three primary factors across two student samples, explaining 64.145% and 66.426% of the variance for the Ghanaian and Nigerian samples, respectively. The Kaiser-Meyer-Olkin (KMO) values were .881 and .907, respectively, with Bartlett's Tests of Sphericity being significant ($p<.001$). This suggests adequate sample adequacy (Bandalos & Finney, 2018).

As shown in Figure 1 and Table 2 in appendix 2, for Ghanaian students, the first factor, named "AI Assessment Transparency and Accountability," consisted of 11 items. This factor highlighted the importance of transparency and accountability in

AI-driven assessments. Key aspects included providing detailed explanations of AI operations, access to information on data usage, and clear guidelines for challenging assessment results. Additionally, it emphasized the need for opportunities for student feedback on AI tools, transparent criteria and algorithms, effective training, communication channels for raising concerns, and education on ethical issues related to AI. The second factor, titled "Students' Perceptions of AI-driven Assessment," comprised 9 items. This factor captured students' understanding and trust in AI assessments. It covered how AI determines grades, the relevance and fairness of AI-generated feedback, and information on data usage. It also included processes for questioning AI assessments, students' confidence in discussing AI-driven assessments with their instructors, and trust in AI's ability to consider different learning styles. The third factor, "Use and Accessibility of AI Tools in Assessment," included four items. This factor focused on the practical aspects of using AI tools, such as their availability at home and school, training received in using AI for assessments, and students' confidence in using AI for assessment purposes.

As shown in Figure 2 and Table 3 in appendix 2, for Nigerian students, the first factor, "AI Assessment Clarity and Support," also comprised 11 items. It emphasized the clarity and reliability of AI-driven assessments. This factor involved students' understanding of assessment criteria, the adequacy of feedback, and the accessibility of AI tools at home and school. It also covered the training students received to use AI, procedures for questioning AI assessments with instructors, confidence in using AI, and whether AI caters to their assessment needs.

The second factor, "Transparency and Accountability in AI Assessments," included 8 items. This factor described the need for transparency and accountability. It involved providing detailed explanations of AI algorithms, information on data usage, and clear guidelines for challenging results. It also emphasized creating channels for student feedback and challenges, increasing transparency in criteria and algorithms, providing training on AI usage, and educating students on ethical AI issues. The third factor, "Use and Understanding of AI in Assessment," consisted of 4 items. This factor focused on informing students about how their data is used in AI-driven assessments, the comfort level in using AI for answering questions and seeking assistance, and AI's ability to provide clear, understandable, and relevant responses to their learning needs.

For the Ghanaian sample, Cronbach's alphas were .95, .89, .79; for the Nigerian sample, they were .93, .93, .88 for each of the factors, respectively, which suggests acceptable reliability (Pallant, 2010). The EFA reveals that both Ghanaian and Nigerian students perceive AI-driven assessments through a three-factor structure, though the specific content and emphasis within these factors differ slightly. Ghanaian students prioritize guidelines and training, while Nigerian students emphasize clarity, data usage, and ethical considerations. These findings highlight shared and distinct concerns regarding AI-driven assessment among the two groups. However, statement 4 was deleted from the Nigerian EFA due to poor fit.

Based on the factor structures identified through the EFA in both countries, an LPA was conducted to explore unique patterns in students' perspectives on AI transparency and accountability in classroom assessment. Composite scores from the identified factors were calculated in SPSS and then analyzed in MPLUS. One to six latent classes were tested to determine the most suitable models. The study focused on distinct populations in two countries that shared similar educational experiences, with the goal of understanding students' perspectives of AI transparency and accountability instead of directly comparing the two countries.

RESULTS

Ghanaian students' perspectives on transparency and accountability in AI-driven assessment

The LPA identified a five-class model for students' perspectives of AI transparency and accountability in classroom assessments, with Entropy = 0.964, AIC = 1644.302, BIC = 1702.898, and SSA BIC = 1633.392. Class probabilities ranged from 0.976 to 1.00. The distribution of classes was as follows: 3.8% in Class 1, 3.2% in Class 2, 1.9% in Class 3, 28.5% in Class 4, and 62.6% in Class 5 (see Figure 3 in appendix 3).

Class 1, comprising 3.8% of students, included those with reservations towards AI, showing low belief in AI transparency and accountability and less positive perceptions of AI-driven assessments. Class 2, with 3.2% of students, represented moderately AI cautious students, having average beliefs in AI transparency and accountability and less positive views on AI assessments. Class 3, the smallest group at 1.9%, included students with optimism towards AI, demonstrating high beliefs in AI transparency and accountability and moderately positive perceptions of AI assessments. Class 4, accounting for 28.5% of students, consisted of advocates for transparent and accountable AI, with strong beliefs in AI transparency and accountability and very positive perceptions of AI assessments. Class 5, the largest group at 62.6%, included strong supporters of AI, displaying high levels of belief in AI transparency and accountability and very positive perceptions of AI assessments.

Despite differences in beliefs about AI transparency and accountability, all students reported low levels of belief in the accessibility and use of AI tools in assessments, with those having reservations or caution about AI use showing the highest levels of concern.

Nigerian students' perspectives on transparency and accountability in AI-driven assessment

The LPA identified a four-class model for students' perspectives of AI transparency and accountability in classroom assessments. These classes had Entropy = 0.940, AIC = 579.180, BIC = 1626.605, and SSA BIC = 1569.746, which outperformed other tested models. The probabilities for each class ranged from 0.908 to 1.00. As shown in Figure 4 in appendix 3, the distribution of students in each class was as follows: Class 1 (6%), Class 2 (6.8%), Class 3 (18.9%), and Class 4 (68.3%). Class 1, consisting of 6% of students, included those with limited experience in AI. They showed a strong belief in the clarity and support provided by AI assessments, moderate positive views on transparency and accountability, but low levels of AI usage and understanding. Class 2, made up of 6.8% of students, represented unengaged students with low belief in the clarity and support of AI assessments, minimal perception of transparency and accountability, and very little AI usage or understanding. Class 3, representing 18.9% of students, included AI enthusiasts advocating accountability and transparency. They had increased belief in AI assessment clarity and support, positive views on transparency and accountability, and a moderate level of AI usage and understanding. Class 4, the largest group at 68.3%, consisted of proficient users of AI technology. They demonstrated strong understanding and support for AI assessments, positive perceptions of transparency and accountability, and average usage and understanding of AI.

Scholarly significance and implications

This study provides initial understanding of higher education students' perspectives on transparency and accountability AI-driven classroom assessment. Interestingly, students indicated a higher usage of AI tools such as ChatGPT, Google Gemini, and Ask AI for formative assessment, and perceived these tools to be moderately accessible. They also expressed confidence in their ability to use these AI tools. These findings indicate a notable progress in bridging the digital gap and enhancing digital skills in both nations.

The study highlights the differing perceptions of AI assessment transparency and accountability among various student groups, emphasizing the importance of tailored approaches in AI-driven classroom assessments. In Ghana, students

generally express optimism and strong support for AI but stress the need for detailed explanations, understanding of data usage, and clear guidelines for challenging results in order to establish trust. They value opportunities for providing feedback and require thorough training and education on AI ethics.

Conversely, students who exhibit more reserved or cautious attitudes towards AI encounter challenges in accessing and using AI tools, affecting their confidence in AI's transparency and accountability. In Nigeria, students typically regard AI as transparent and accountable, demonstrating proficiency in using AI tools. These students appreciate AI's clarity and support, possess understanding of AI algorithms and criteria, and display high confidence in AI-driven assessments. They express significance of transparency in AI algorithms, data usage, and guidelines for challenging results, along with the importance of education on AI ethics.

However, students with limited experience in AI may not perceive AI as transparent or accountable due to their limited usage and understanding. The differences in perceptions indicate that students' beliefs about AI's transparency, accountability, accessibility, and use cannot be the same for all students. Addressing these disparities calls for providing equitable access to AI tools, comprehensive training, and clear communication to ensure that all students can benefit from AI-driven assessments transparently and accountably.

References

Baidoo-Anu, D., & Ansah, L. O. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. *Journal of AI*, *7*(1), 52-62. https://doi.org/10.61969/jai.1337500

Baidoo-Anu, D., Asamoah, D., Amoako, I. & Mahama, I. (2024). Exploring student perspectives on generative artificial intelligence in higher education learning. *Discover Education,* 3, 98. https://doi.org/10.1007/s44217-024-00173-z

Bandalos, D. L., and Finney, S. J. (2018). "Factor analysis: exploratory and confirmatory" in *The reviewer's guide to quantitative methods in the social sciences* (New York, NY: Routledge), 98–122.

Black, P., & Wiliam, D. (2018). Classroom assessment and pedagogy. *Assessment in education: Principles, policy & practice*, *25*(6), 551-575. https://doi.org/10.1080/0969594X.2018.1441807

Bozkurt, A., Karadeniz, A., Baneres, D., Guerrero-Rold´an, A. E., & Rodríguez, M. E. (2021). Artificial intelligence and reflections from educational landscape: A review of AI studies in half a century. Sustainability, 13(2), 800. https://doi.org/10.3390/su13020800

Cheong, B. C. (2019). Transparency and accountability in AI systems : safeguarding wellbeing in the age of algorithmic decision-making. *Frontiers in Education, 6,* 1421273. https://doi.org/10.3389/fhumd.2024.1421273

Felzmann, H., Fosch, E., & Christoph, V. (2020). Towards transparency by design for artificial intelligence. *Science and Engineering Ethics*, *26*(6), 3333–3361. https://doi.org/10.1007/s11948-020-00276-4

Holmes, W., Porayska-Pomsta, K., Holstein, K., Sutherland, E., Baker, T., Shum, S. B., Santos, O. C., Rodrigo, M. T., Cukurova, M., Bittencourt, I. I., & Koedinger, K. R. (2021). Ethics of AI in education: Towards a community-wide framework. *International Journal of Artificial Intelligence in Education,* *32*(3), 504–526. https://doi.org/10.1007/s40593-021-00239-1

Kim, B., Park, J., & suh, J. (2020). Transparency and accountability in AI decision support: Explaining and visualizing convolutional neural networks for text information.

Decision support systems, 134, 113302. https://doi.org/10.1016/j.dss.2020.113302

Landa, N., Zhou, S., & Marongwe, N. (2021). Education in emergencies: Lessons from COVID-19 in South Africa. *International Review of Education*, *67*(1), 167-183. https://doi.org/10.1007/s11159-021-09903-z

Licht, K. D. F., & Licht, J. D. F. (2020). Artificial intelligence, transparency, and public decision-making. *AI & Society*, *35*(4), 917–926. https://doi.org/10.1007/s00146-020-00960-w

Memarian, B., & Doleck, T. (2023). Artificial intelligence fairness, accountability, transparency, and ethics (FATE) in artificial intelligence (AI) and higher education: A systematic review. *Computers and Education, 5,* 100152. https://doi.org/10.1016/j.caeai.2023.100152

Novelli, C., Taddeo, M., & Floridi, L. (2023). Accountability in artificial intelligence : what it is and how it works. *AI & Society*. https://doi.org/10.1007/s00146-023-01635-y

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural equation modeling: A multidisciplinary Journal*, *14*(4), 535-569. https://doi.org/10.1080/10705510701575396

Pallant, J. (2010). *SPSS survival manual* (4th ed.). McGraw Hill.

Smith, H. (2021). Clinical AI : opacity, accountability, responsibility and liability. *AI & Society*, *36*(2), 535–545. https://doi.org/10.1007/s00146-020-01019-6

Appendix 1

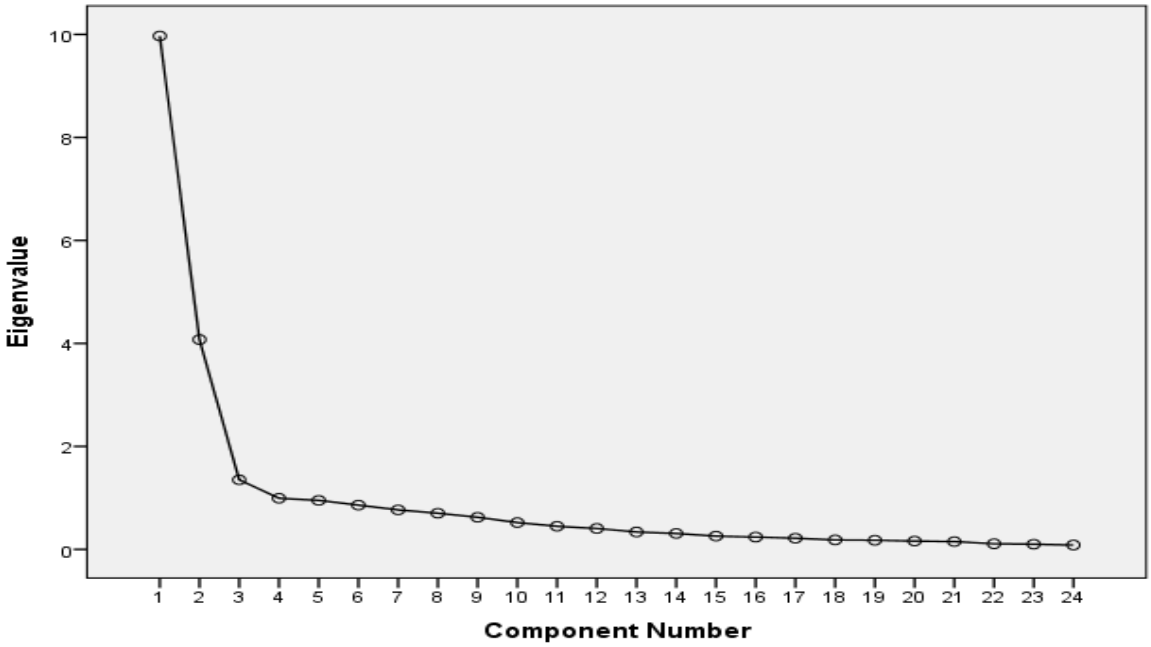
Table 1. Participants' demographics

	Ghana (N=106)		Nigeria (N=103)	
Variable	Frequency	%	Frequency	%
Gender				
Male	79	74.5	65	63.1
Female	27	25.5	38	36.9
Programme				
Science education	26	24.5	39	37.9
Primary education	4	3.8	7	6.8
Social Studies education	11	10.4	12	11.7
English education	22	20.8	8	7.8
Maths education	9	8.5	24	23.3
ICT education	20	18.9	13	12.6
Art education	14	13.2	-	-
Location				
Peri-urban	21	19.8	25	24.3
Urban	65	61.3	70	68.0
Rural	20	18.9	8	7.8
AI tools				
Chatgpt	47	44.3	63	61.2
Quizizz	14	13.2	1	1.0
Google Gemini	11	10.4	19	18.4
Bing	6	5.7	1	1.0
Snapchat AI	5	4.7	5	4.9
Ask AI	2	1.9	9	8.7
Quilbot	21	19.8	5	4.9
Frequency of using AI assessment				
Never	10	9.4	9	8.7
Sometimes	64	60.4	52	50.5
Always	32	30.2	42	40.8
Types assessment AI is used				
Don't know	16	15.1	15	14.6
Formative	41	38.7	43	41.7
Summative	2	1.9	9	8.7
Both	47	44.3	36	35.0
AI tools adequacy and availability				
Don't know	6	5.7	14	13.6
Inadequate and unavailable	28	26.4	31	30.1
Adequate and available	72	67.9	58	56.3
AI competency				
Not competent	10	9.4	17	16.5
Moderately competent	70	66.0	54	52.4
Very competent	26	24.5	32	31.1

Appendix 2

EFA among Ghanaian sample

Figure 1. Screen plot



EFA among Nigerian sample

Figure 2. Screen plot

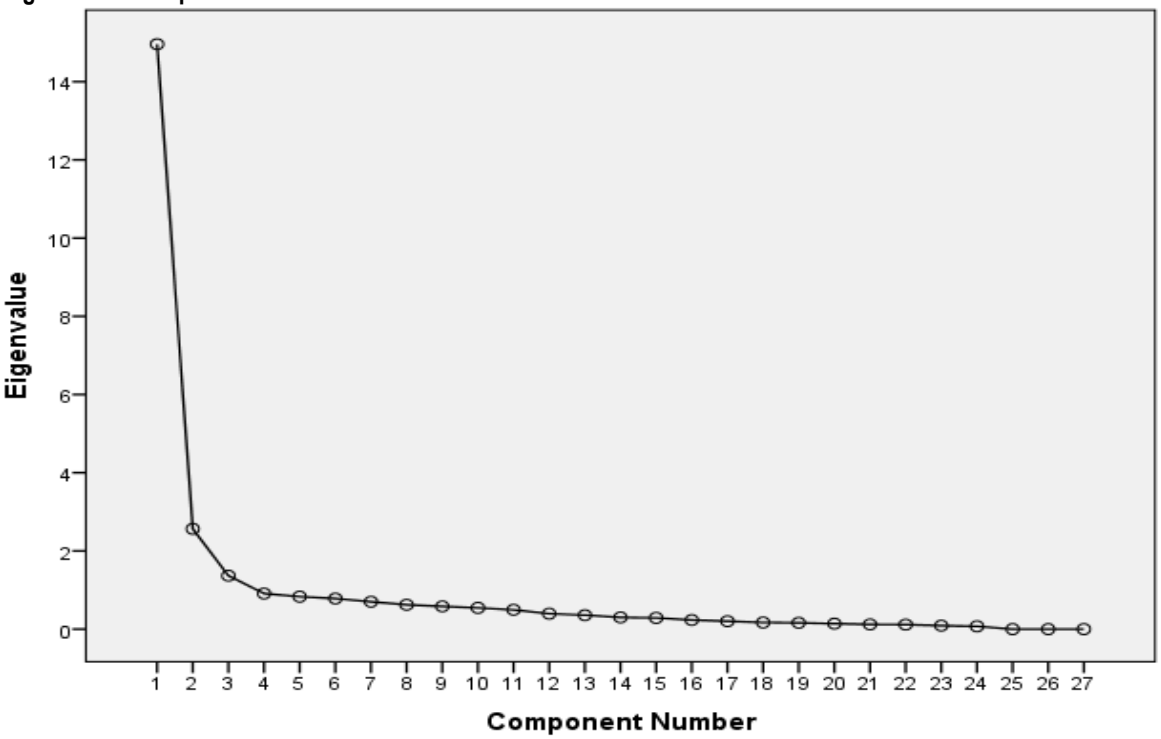


Table 2. Rotated Factor among Ghanaian sample

Statements	Factors		
	A	B	C
1.I understand how AI-driven assessments determine my grades or support my classwork and assignments.		.577	
2.The criteria used by AI-driven assessments are clearly explained to me.		.742	
3.I trust the accuracy of AI-driven assessments in evaluating my performance.		.824	
4.I feel that AI-driven assessments are fair.		.822	
5.The feedback I receive from AI-driven assessments is clear and helpful.		.775	
6.I am informed about how my data is used in AI-driven assessments.		.699	
7.There is a clear process for me to ask questions or challenge the results of AI-driven assessments.		.729	
8.I feel confident discussing my AI-driven assessment results with my teachers.		.536	
9.I believe that AI-driven assessments take into account my individual learning style and needs.		.615	
10.I find it helpful when AI technology answers my questions related to the material being studied.	.636		
11. The feedback provided by AI technology on my assignments or assessments is valuable in helping me understand my strengths and areas for improvement.	.547		
12.I feel comfortable seeking assistance from AI technology when I encounter difficulties with my studies.	.535		
13.The responses provided by AI technology to my questions are easy to understand and relevant to my learning needs.			.563
14.I have access to AI tools at school or at home to support my assessments (e.g., AI-driven assessment platforms, tutoring applications).			.748
15.I have received training on how to effectively use AI tools for assessment purposes.			.732
16.I feel confident in my ability to effectively use AI tools for assessment purposes			.522
17.Providing more detailed explanations of how AI algorithms work would improve transparency in assessments.	.611		
18.Students should have access to information explaining how their data is used in AI assessments to ensure accountability.	.818		
19.Clear guidelines should be established for challenging AI-driven assessment results to enhance accountability in the process.	.909		
20.There should be opportunities for students to provide feedback on AI assessment tools to improve transparency and accountability.	.883		
21.Increased transparency in the criteria and algorithms used by AI assessments would make the process more accountable.	.801		
22.Students should receive training on how to effectively use AI tools for assessment purposes	.862		
23.There should be clear communication channels for students to raise concerns or ask questions about AI-driven assessments	.869		
24.Students should be educated about the ethical considerations involved in the use of AI technology for providing feedback on their assignments.	.875		
Number of items	11	9	4
Reliability	.95	.89	.79
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]			

A: AI Assessment Transparency and Accountability B: Students' Perceptions of AI-driven Assessment C: Use and Accessibility of AI Tools in Assessment

Table 3. Rotated Factor among Nigerian sample			
Statements	Factors		
1.I understand how AI-driven assessments determine my grades or support my classwork and assignments.	.714		
2.The criteria used by AI-driven assessments are clearly explained to me.	.691		
3.I trust the accuracy of AI-driven assessments in evaluating my performance.	.662		
5. The feedback I receive from AI-driven assessments is clear and helpful.	.618		
6.I am informed about how my data is used in AI-driven assessments.			.554
7. There is a clear process for me to ask questions or challenge the results of AI-driven assessments.	.541		
8.I feel confident discussing my AI-driven assessment results with my teachers.	.736		
9.I believe that AI-driven assessments take into account my individual learning style and needs.	.795		
10. I find it helpful when AI technology answers my questions related to the material being studied.			.589
11. The feedback provided by AI technology on my assignments or assessments is valuable in helping me understand my strengths and areas for improvement	.512		
12.I feel comfortable seeking assistance from AI technology when I encounter difficulties with my studies.			.795
13.The responses provided by AI technology to my questions are easy to understand and relevant to my learning needs.			.764
14.I have access to AI tools at school or at home to support my assessments (e.g., AI-driven assessment platforms, tutoring applications).	.611		
15.I have received training on how to effectively use AI tools for assessment purposes.	.701		
16.I feel confident in my ability to effectively use AI tools for assessment purposes	.691		
17.Providing more detailed explanations of how AI algorithms work would improve transparency in assessments.		.518	
18.Students should have access to information explaining how their data is used in AI assessments to ensure accountability.		.645	
19.Clear guidelines should be established for challenging AI-driven assessment results to enhance accountability in the process.		.767	
20.There should be opportunities for students to provide feedback on AI assessment tools to improve transparency and accountability.		.820	
21.Increased transparency in the criteria and algorithms used by AI assessments would make the process more accountable.		.736	
22.Students should receive training on how to effectively use AI tools for assessment purposes		.766	
23.There should be clear communication channels for students to raise concerns or ask questions about AI-driven assessments		.851	
24.Students should be educated about the ethical considerations involved in the use of AI technology for providing feedback on their assignments.		.814	
Number of Items	11	8	4
Reliability	.93	.93	.88
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]			

A: AI Assessment Clarity and Support

B: Transparency and Accountability in AI Assessments

C: Use and Understanding of AI in Assessment

Appendix 3

Figure 3. Patterns of Ghanaian students' perceptions of AI transparency and accountability in class assessment

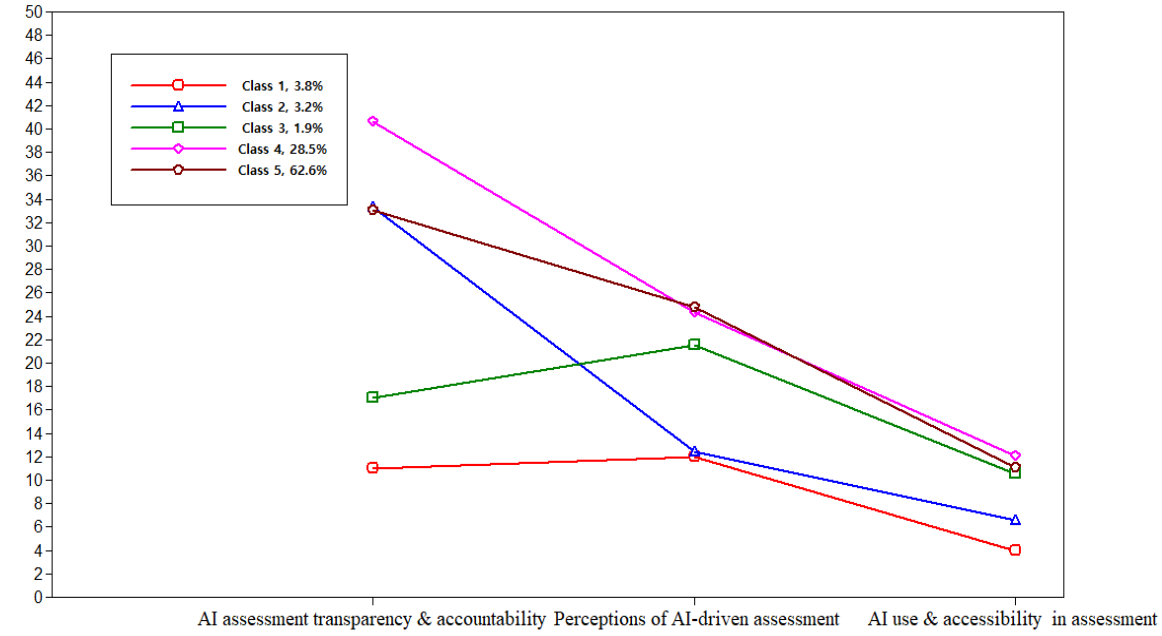


Figure 4. Patterns in Nigerian students' perceptions of AI transparency and accountability in class assessment