

United Nations General Assembly Resolution on Trustworthy Artificial Intelligence and Its Implications for Inclusive and Equitable Education: A Descriptive Survey

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Abstract: In March 2024 the United Nations (UN) General Assembly adopted resolution A/RES/78/265 on trustworthy artificial intelligence (AI) for sustainable development. It commits to Sustainable Development Goal 4 on education, yet little is known about how students read such norms. This descriptive survey asked a stratified random sample of 206 students at one university to rate 41 statements adapted from the draft resolution. Agreement (agree or strongly agree) ranged from 85.4% to 94.7%. Strong agreement was most frequent for research and international cooperation (48.1%) and for human rights (47.1%). Measures against bias were endorsed least strongly, and bias testing had the lowest agreement (85.4%). Lack of funding and low AI literacy were the most strongly endorsed challenges. Students accept the resolution's normative commitments but endorse operational measures against bias less strongly. Institutions may need to explain bias audits to students and should address funding and AI literacy first.

Keywords: AI Governance; AI Ethics; Educational Equity; Inclusive Education; Student Perceptions

INTRODUCTION

On March 21, 2024, the United Nations (UN) General Assembly adopted the resolution “Seizing the opportunities of safe, secure and trustworthy artificial intelligence systems for sustainable development” ([United Nations General Assembly, 2024c](#)). The text had been circulated on March 11, 2024, as draft resolution A/78/L.49, listing 55 sponsors ([United Nations General Assembly, 2024d](#)). Its preambular and operative paragraphs were adopted unchanged as resolution 78/265. In it, the General Assembly resolves to bridge artificial intelligence (AI) and other digital divides between and within countries. It also resolves to promote AI systems that are safe, secure and trustworthy, and it emphasizes that human rights must be respected, protected and promoted throughout the AI life cycle ([United Nations General Assembly, 2024c](#), paras. 1, 2 and 5).

The resolution commits Member States to using AI to achieve “all 17” Sustainable Development Goals (SDGs) (paras. 2, 4(c) and 6(o)), which include SDG 4. That goal commits States to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” ([United Nations, 2017](#)). Provisions with direct relevance to education concern digital literacy (paras. 4(a) and 6(p)), media and information literacy (para. 6(g)), public awareness of the capabilities and limitations of AI (para. 6(d)), and digital training and capacity building (para. 6(q)). Later General Assembly texts address education in more detail, and the

United Nations Educational, Scientific and Cultural Organization (UNESCO) provides education-specific guidance (UNESCO, 2022, 2023, 2024a, 2024b).

Students are among the intended beneficiaries of AI-enabled education, so their views of the resolution matter. UNESCO guidance on generative AI recommends consulting learners about their views on such tools before deciding whether and how to deploy them (UNESCO, 2023, p. 25). UNESCO (2025, p. 14) also notes that students facing linguistic and digital exclusion are often absent from global debate on AI in education. This study describes how students at one university rated statements adapted from the draft resolution and from its possible applications to education.

Conceptual Framework

The study draws on principle-based AI ethics and on the idea of inclusive and equitable education set out in SDG 4. A review of 84 AI ethics guidelines found convergence on five principles: transparency, justice and fairness, nonmaleficence, responsibility and privacy. It also found marked divergence in how these principles are interpreted and implemented, and noted that Africa and South America were not represented independently (Jobin et al., 2019). Education-specific syntheses reach similar conclusions. Nguyen et al. (2023) derived seven principles for AI in education from six international guidelines. Adams et al. (2023) found that guidance on AI in primary and secondary (K-12) education retained seven of Jobin et al.'s principles and added four: pedagogical appropriateness, children's rights, AI literacy and teacher well-being. In a review of 10 articles followed by expert validation, Go et al. (2026) found that the ethical principles in the AI-in-education literature were the same 11 identified by Jobin et al. The resolution's provisions on human rights, bias, transparency, human oversight, data protection and international cooperation correspond to these principle families. The UNESCO Recommendation on the Ethics of Artificial Intelligence restates them for education in its policy area on education and research (UNESCO, 2022, paras. 101–111).

In this framework, inclusion means removing barriers to learning and participation for all students. Equity means fair treatment and an equal opportunity to succeed regardless of background (Ling & Nasri, 2019). Quality refers to the SDG 4 commitment to effective learning outcomes for all (United Nations, 2017). Students' views are treated as stated endorsement of principles. Endorsement is distinct from knowledge, competence or behavior (Hillis et al., 2026; Wiese et al., 2025).

The Resolution and United Nations Governance of AI

Resolution 78/265 has nine preambular and 13 operative paragraphs. Its preamble defines trustworthy AI systems in the nonmilitary domain as "human-centric, reliable, explainable, ethical, inclusive." Such systems must also respect human rights and international law, preserve privacy, and be sustainable-development-oriented and responsible (United Nations General Assembly, 2024c). The resolution calls for cooperation with and assistance to developing countries through capacity building, technology transfer and financing (para. 4). It states that the same rights people have offline must be protected online (para. 5). Paragraph 6 encourages regulatory and governance approaches, risk assessment and safeguards, interoperable technical tools and standards, frameworks to analyze and mitigate bias in datasets, transparency and human oversight of automated decisions, and AI systems that preserve linguistic and cultural diversity. Paragraph 7 concerns data governance and trusted cross-border data flows.

Subsequent General Assembly texts address education in more detail. Resolution 78/311 on AI capacity building notes that a lack of skills, "including education," remains a fundamental challenge in many developing countries (United Nations General Assembly, 2024a, preamble). It calls for removing barriers faced by children and youth "through investment, education, training" (para. 8). The Global Digital Compact, adopted with the Pact for the Future, commits States to adapt teacher training and education curricula and to roll out media and information literacy curricula (United Nations General Assembly, 2024b, annex I, paras. 13(a) and 35(a)). It also commits them to international partnerships on AI capacity building "to develop education and

training programmes” (para. 60). The Secretary-General’s High-level Advisory Body on AI proposed online educational opportunities on AI for university students, among other groups ([United Nations High-level Advisory Body on Artificial Intelligence, 2024](#), p. 64). Resolution 79/325 then established the Independent International Scientific Panel on AI and the Global Dialogue on AI Governance ([United Nations General Assembly, 2025](#)). All of these texts are nonbinding. [Ihnatusha \(2025\)](#) characterizes General Assembly resolutions on AI as soft law and argues that the human rights provisions of resolution 78/265 remain declarative without criteria, oversight or sanctions. [Table 1](#) maps the questionnaire blocks to the provisions of the resolution.

Table 1. Questionnaire blocks mapped to provisions of resolution 78/265

Block (statements)	Main provisions drawn on	Relation to the resolution text
A. Principles of the resolution (10)	Paras. 1 (digital divides), 2 (trustworthy AI and the 2030 Agenda), 3 and 6(a) (regulatory and governance approaches), 4 (assistance to developing countries), 5 (human rights across the life cycle), 6(b), 6(e), 6(f) and 6(l) (risk assessment and safeguards), 6(g) (interoperable tools and standards), 6(h) (bias and discrimination), 6(k) (transparency and human oversight), 6(o) (research and international cooperation)	Paraphrase of the provisions
B. Perceived implications for content and delivery (8)	Paras. 1 and 4 (divides, developing countries), 3 and 6(a), 4(a) and 6(q) (capacity building), 5, 6(b) and 6(e), 6(h), 6(k), 6(m) (linguistic and cultural diversity)	Application to education by the researchers (e.g., automated grading, educator training, localized learning materials)
C. Perceived implications for equity (7)	Paras. 1, 4, 5, 6(h), 6(m), 7 (data governance and cross-border data flows)	Application to education by the researchers (e.g., sharing educational resources through cross-border data flows)
D. Anticipated challenges (8)	Preambular paragraphs on challenges facing developing countries and on digital divides; paras. 4(a), 4(b), 4(d), 4(f), 6(d), 6(g), 6(h), 6(k), 6(m)	Researchers’ formulation of obstacles; resistance to change has no counterpart in the text
E. Recommendations (8)	Paras. 3, 6(a), 6(d), 6(h), 6(k), 6(l), 6(o), 8	Researchers’ formulation of institutional measures; the education-specific measures correspond to UNESCO (2022, paras. 101–111)

Note: Paragraph numbers refer to operative paragraphs of A/RES/78/265, whose text is identical to draft resolution A/78/L.49; preambular paragraphs are unnumbered in the resolution and are named where used. Paragraph 6(p), on gender, disability and racial equality, is not represented in the questionnaire.

AI in Education: Benefits and Risks

Reviews report that AI can personalize instruction and feedback ([Bilad et al., 2023](#)) and support research, grading and student services ([Dempere et al., 2023](#)). They also identify a common set of risks: misuse of personal data and surveillance, algorithmic bias, misinformation, plagiarism, reduced human interaction and a digital literacy gap ([Bilad et al., 2023](#); [Dempere et al., 2023](#); [Klimova et al., 2023](#)). The evidence behind these claims has weaknesses. Few highly cited studies of AI in education combined AI techniques with educational theory ([Chen et al., 2020](#)), and leading researchers in the field reported that it lacked shared ethical frameworks ([Holmes et al., 2022](#)).

Bias receives particular attention. It can lead AI systems to reproduce and amplify social inequalities unless technical mitigation is combined with ethical and regulatory safeguards (Ferrara, 2024). UNESCO's guidance on generative AI adds that such models are opaque, inherit biases that are hard to detect and are dominated by data from the Global North, and it advises institutions not to adopt them without validation (UNESCO, 2023). UNESCO's teacher framework holds that teachers should not and cannot be replaced by technology (UNESCO, 2024b, pp. 13–14). These risks correspond to the resolution's provisions on bias, transparency and human oversight, so the questionnaire asked how strongly students endorse such safeguards when applied to education.

Inclusion and Equity in Education

SDG 4 frames inclusive education as equitable, quality education for all learners (United Nations, 2017), but the concept is understood inconsistently. Reviews of inclusive pedagogies and curricula in higher education find no shared understanding of either and caution against narrow, procedural approaches (Stentiford & Koutsouris, 2021, 2022). In interviews with 119 faculty members at 10 Spanish public universities, over a third said they knew nothing about inclusive education, and others understood it through a deficit model focused on disability (Márquez & Melero-Aguilar, 2022). Reported barriers include insufficient teacher training and limited resources (Arnaiz Sánchez et al., 2019) and gaps in digital competence (Ling & Nasri, 2019). Financial hardship, racial discrimination and gender inequality also impede equity (Ling & Nasri, 2019).

Technology can support inclusion when it is pedagogically grounded. Students from low socioeconomic backgrounds at Australian universities reported that teaching with technology helped them succeed when it offered varied resources, interactive and personalized learning, and high standards (Devlin & McKay, 2016). A systematic review of 42 arts and humanities studies found that educational technology was mostly associated with behavioral engagement. It also warned that technology used without sound pedagogy can overwhelm students (Bedenlier et al., 2020). Teachers, administrators and teacher educators in Türkiye believed that technology integration in inclusive preprimary and primary education supports lasting, quick and easy learning, while warning of distraction and weak infrastructure (Uygur et al., 2020). University teachers often lack the digital competence and disability awareness needed to use technology inclusively (Fernández-Cerero et al., 2023). In South Africa, a national disability services association has spread knowledge of assistive technology across institutions (Lyner-Cleophas, 2019). A scoping review of 133 studies found that students with disabilities and with medical and mental health conditions call for universally designed environments, better-informed lecturers, digital and assistive technologies and individual accommodations (Bartolo et al., 2023). AI tools introduced in the name of inclusion would need to meet these requirements.

AI, Equity and Sustainable Development Goal 4

Whether AI narrows or widens educational gaps is contested. Bulathwela et al. (2024) argue that AI alone will not democratize education and that its first large-scale uses could increase inequality. From an analysis of strengths, weaknesses, opportunities and threats, Alshamy et al. (2026) concluded that AI's contribution to SDG 4 is "conditional rather than automatic" and depends on conditions such as funding and digital infrastructure. A review of evidence from Nigerian and other African universities reaches a similar conclusion about digital investment. Provision of digital resources has not reliably produced use, because weak infrastructure, high costs, low awareness and absent enforcement determine whether students' capability becomes practice (Adetayo, 2026). A bibliometric mapping of generative AI research against the SDG 4 targets found that the literature concentrates on higher education and gives little attention to inclusion or to developing countries (Nedungadi et al., 2024). UNESCO's 2025 anthology on AI and the future of education treats the AI divide as a matter of language, data and voice as well as access (UNESCO, 2025). Ninety-nine percent of the world's languages lack the data needed to train current generative models (Choudhry, 2023, as cited in Perkins & Roe, 2025). Marivate et al. (2025) argue that AI trained mainly on English fails many African learners who use Indigenous languages daily. Porayska-Pomsta and Asare (2025) urge policy to move from abstract principles to context-

sensitive, actionable definitions. This literature suggests that students' expectations of equity gains, and the obstacles they foresee, are worth measuring directly, which RQ2 and RQ3 do.

Students' Views and the Research Gap

Empirical work on students' views of AI governance is limited. Reviews of AI ethics education show that interventions are evaluated mostly through self-report surveys, rarely with validated instruments. Governance and regulation were addressed in only 9 of 43 studies of university AI ethics education, and trust and human oversight in 2 (Hillis et al., 2026). Among professionals, 34 librarians at private Nigerian universities strongly agreed that guidelines on privacy, transparency, consent and bias in the use of public AI chatbots were needed. They agreed least that they had been trained in these issues (Olusipe et al., 2024). Over half of the studies of AI ethics education interventions come from the United States, and none from Africa (Wiese et al., 2025). An international Delphi study prioritized privacy, trustworthy algorithms and fairness, but it included no African participants and no students (Ifenthaler et al., 2024). UNESCO guidance recommends consulting learners about generative AI (UNESCO, 2023), and a chapter in its 2025 anthology calls for research that foregrounds learners' views (Wang, 2025). We found no published study that asked students to respond to the provisions of the General Assembly resolution. The present study addresses this gap. It provides student-level evidence on which of the resolution's commitments students endorse strongly and which they endorse less strongly, and it maps each questionnaire block to the resolution and to the UN and UNESCO instruments that address education. Institutions applying the resolution in education can use this evidence to see where student support is firm and where it needs to be built.

Research Questions

In this paper, "perceived implications" means the level of agreement with statements that link a provision of the resolution to an educational outcome. Four research questions (RQs) guided the study:

RQ1. To what extent do students agree with the principles set out in the resolution?

RQ2. To what extent do students agree that applying these principles could improve educational content and delivery and educational equity across diverse student populations?

RQ3. Which challenges do students anticipate in applying the resolution's principles to inclusive and equitable education?

RQ4. Which institutional measures for integrating AI ethics into educational practice do students endorse?

METHOD

Research Design

The study used a quantitative, descriptive, cross-sectional survey design, because the research questions concern the extent of agreement across a large student population. It describes the level and distribution of students' agreement with statements derived from the draft resolution at a single point in time.

Participants and Sampling

The target population was the 3,457 students enrolled in academic programs at Adeleke University. A multistage stratified random sample was drawn. Students were first stratified by academic program with proportional allocation, and participants within each stratum were then selected by simple random sampling.

A sample size of 267 was originally calculated for a simple random sample using Equation (1). The calculation used a 95% confidence level, an expected proportion of .50 and a margin of error of $\pm 6\%$.

(1)

Applying the finite population correction for $N = 3,457$ reduces the requirement to 248. With 206 respondents, the margin of error for a proportion of .50 is $\pm 6.6\%$ with the finite population correction, slightly wider than the planned $\pm 6\%$.

Table 2 reports respondents' ages. Almost half (48.1%) were aged 21–25, and 73.3% were 30 or younger. A further 20.4% were 36 or older.

Table 2. Age distribution of respondents ($N = 206$)

Age (years)	n	%
Below 20	13	6.3
21–25	99	48.1
26–30	39	18.9
31–35	13	6.3
36–40	20	9.7
41–45	14	6.8
46–50	5	2.4
51–55	3	1.5
Total	206	100.0

Note: Age bands are reported as collected.

Instrument

The researchers developed a self-administered questionnaire. Statements were adapted from the preambular and operative paragraphs of draft resolution A/78/L.49, whose text is identical to that of the adopted resolution 78/265. The questionnaire had 41 statements in five blocks: principles of the resolution (10 statements), perceived implications for educational content and delivery (8), perceived implications for educational equity (7), anticipated challenges (8) and recommendations for institutional practice (8). Each statement was rated on a 4-point scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*) with no neutral option.

The 10 principle statements paraphrase specific provisions of the resolution. The statements in the content, delivery and equity blocks apply those provisions to education. Their educational wording, such as automated grading, teacher training and localized learning materials, was written by the researchers (Table 1). Expert reviewers assessed the instrument for clarity and relevance, and the questionnaire was revised in response to their comments.

Data Collection

The questionnaire was administered through Google Forms. The link was sent to the 267 sampled students, and the survey remained open for 6 weeks, with reminders during that period. Participation was voluntary and anonymous. In total, 206 students responded, a response rate of 77.2%.

Data Analysis

Responses were coded and analyzed in IBM SPSS Statistics. For each statement, the analysis reports the frequency and percentage of each response category, the mean and standard deviation, and the percentage agreeing (agree or strongly agree) with a 95% Wilson score confidence interval. Because the data are ordinal, means are reported for comparability with earlier studies and are read alongside the full response distributions. Overall agreement was close to the ceiling for every statement. The percentage choosing strongly agree is therefore used as an indicator of the strength of endorsement. Statements are compared descriptively within blocks. No inferential test of differences between statements was conducted, and small differences in means (e.g., 0.02 to 0.06) are not interpreted.

RESULTS

Agreement was high throughout. Across the 41 statements, 85.4% to 94.7% of respondents agreed or strongly agreed (mean 90.3%), and item means ranged from 3.15 to 3.41 on the 4-point

scale. No statement drew strong disagreement from more than 3.4% of respondents. With agreement this high for every statement, the results focus on where endorsement was stronger or weaker, as shown by the share choosing strongly agree (29.1% to 48.1%) and the share disagreeing. Figure 1 shows the full response distributions. Tables 3 to 7 report the statistics for each block, ordered by mean. They answer RQ1 (Table 3), RQ2 (Tables 4 and 5), RQ3 (Table 6) and RQ4 (Table 7).

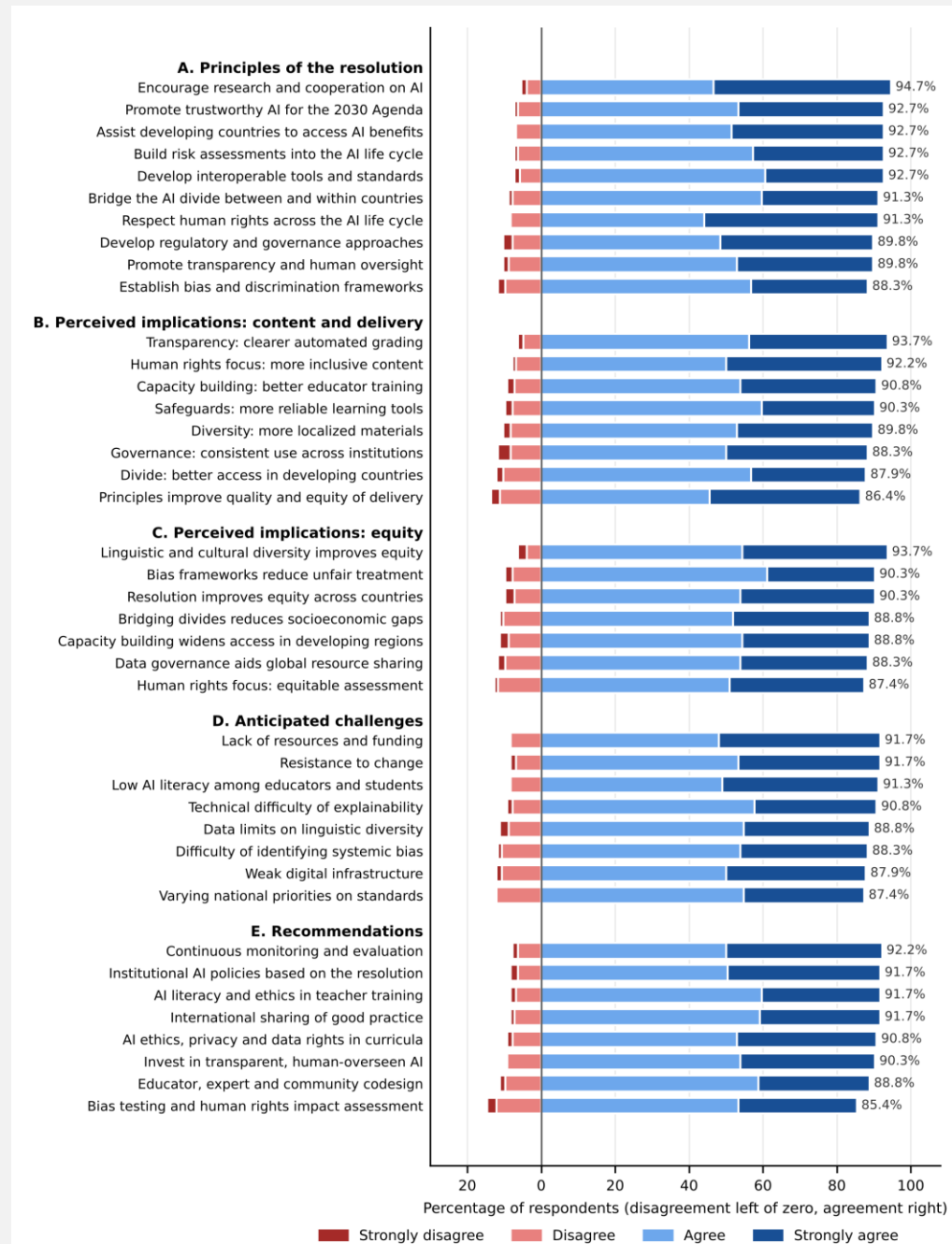


Figure 1. Distribution of responses to the 41 questionnaire statements by block. (Source: authors' own data.)

Note: $N = 206$. Bars to the left of zero show the percentage disagreeing or strongly disagreeing; bars to the right show the percentage agreeing or strongly agreeing. Values at the end of each bar are the percentage agreeing. Statements are abbreviated and, within each block, ordered by the percentage agreeing; full wording is given in Tables 3 to 7.

Principles of the Resolution (RQ1)

Table 3 reports the 10 principle statements, each endorsed by 88.3% to 94.7% of respondents. Strong agreement was most frequent for encouraging research and international cooperation on the benefits and risks of AI for sustainable development ($M = 3.41$, 48.1% strongly agree). It was next most frequent for respecting human rights throughout the AI life cycle ($M = 3.38$, 47.1%). The lowest-rated principle was establishing frameworks to analyze and mitigate bias and discrimination in AI systems ($M = 3.18$). For this statement, 31.6% strongly agreed and 11.7% disagreed or strongly disagreed. Bridging the AI divide ($M = 3.22$) and developing interoperable tools and standards ($M = 3.23$) were also near the bottom of the block, although more than 90% of respondents agreed with each.

Table 3. Response distributions for the 10 principle statements ($N = 206$)

Statement	Strongly disagree	Disagree	Agree	Strongly agree	M (SD)	Agree % [95% CI]
Research and cooperation to understand benefits and risks of AI for sustainable development should be encouraged.	3 (1.5)	8 (3.9)	96 (46.6)	99 (48.1)	3.41 (0.64)	94.7 [90.7, 97.0]
Human rights should be respected throughout the AI systems' life cycle.	1 (0.5)	17 (8.3)	91 (44.2)	97 (47.1)	3.38 (0.66)	91.3 [86.6, 94.4]
Cooperation and assistance should be provided to developing countries for inclusive access to benefits of AI.	1 (0.5)	14 (6.8)	106 (51.5)	85 (41.3)	3.33 (0.62)	92.7 [88.3, 95.5]
Safe, secure, and trustworthy AI systems should be promoted to accelerate the 2030 Agenda for Sustainable Development.	2 (1.0)	13 (6.3)	110 (53.4)	81 (39.3)	3.31 (0.63)	92.7 [88.3, 95.5]
Regulatory and governance approaches related to safe, secure, and trustworthy AI systems should be developed.	5 (2.4)	16 (7.8)	100 (48.5)	85 (41.3)	3.29 (0.71)	89.8 [84.9, 93.2]
Safeguards like risk assessments should be incorporated across the AI life cycle.	2 (1.0)	13 (6.3)	118 (57.3)	73 (35.4)	3.27 (0.62)	92.7 [88.3, 95.5]
Transparency, explainability, and human oversight of impactful AI decisions should be promoted.	3 (1.5)	18 (8.7)	109 (52.9)	76 (36.9)	3.25 (0.67)	89.8 [84.9, 93.2]
Internationally interoperable tools, standards, and practices for AI systems should be developed.	3 (1.5)	12 (5.8)	125 (60.7)	66 (32.0)	3.23 (0.62)	92.7 [88.3, 95.5]
There should be efforts to bridge the artificial intelligence divide between and within countries.	2 (1.0)	16 (7.8)	123 (59.7)	65 (31.6)	3.22 (0.62)	91.3 [86.6, 94.4]
Frameworks to analyze and mitigate bias and discrimination in AI systems should be established.	4 (1.9)	20 (9.7)	117 (56.8)	65 (31.6)	3.18 (0.68)	88.3 [83.3, 92.0]

Note: Values are frequencies with percentages in parentheses. M = mean and SD = standard deviation on a scale from 1 (strongly disagree) to 4 (strongly agree). Agree = agree or strongly agree; CI = confidence interval (Wilson score). Statements are reproduced as worded in the questionnaire and ordered by mean.

Perceived Implications for Educational Content, Delivery and Equity (RQ2)

Table 4 reports the eight statements on educational content and delivery, with agreement from 86.4% to 93.7%. The highest means were for two statements. The first was that an emphasis on human rights and nondiscrimination can promote more inclusive educational content ($M = 3.33$, 42.2% strongly agree). The second was that transparency and explainability could improve understanding of automated grading and evaluation systems ($M = 3.30$), which also had the highest overall agreement in the block (93.7%). The lowest means were for bridging the AI divide to improve access for students in developing countries ($M = 3.17$) and for safeguards making personalized learning tools more reliable and unbiased ($M = 3.19$). The latter had the lowest share of strong agreement in the block (30.6%). The general statement that implementing the principles could significantly improve the quality and equity of education delivery had the lowest overall agreement in the block (86.4%) and the most disagreement (13.6%). Because 40.8% strongly agreed with it, views on this statement were more divided than on the others.

Table 4. Response distributions for the eight content and delivery statements ($N = 206$)

Statement	Strongly disagree	Disagree	Agree	Strongly agree	$M (SD)$	Agree % [95% CI]
The emphasis on human rights and non-discrimination in AI systems can promote more inclusive educational content.	2 (1.0)	14 (6.8)	103 (50.0)	87 (42.2)	3.33 (0.65)	92.2 [87.8, 95.2]
Principles of transparency and explainability for AI decisions could lead to better understanding of automated grading/evaluation systems.	3 (1.5)	10 (4.9)	116 (56.3)	77 (37.4)	3.30 (0.63)	93.7 [89.5, 96.3]
The resolution's focus on capacity building could lead to better training for educators in leveraging AI for teaching and learning.	4 (1.9)	15 (7.3)	111 (53.9)	76 (36.9)	3.26 (0.67)	90.8 [86.0, 94.0]
Promoting linguistic and cultural diversity in AI systems could result in more localized and contextualized educational materials.	4 (1.9)	17 (8.3)	109 (52.9)	76 (36.9)	3.25 (0.69)	89.8 [84.9, 93.2]
Implementing the UN AI ethics principles could significantly improve the quality and equity of education delivery.	5 (2.4)	23 (11.2)	94 (45.6)	84 (40.8)	3.25 (0.75)	86.4 [81.1, 90.4]
Frameworks for AI governance could enable more standardized and consistent use of AI technologies across educational institutions.	7 (3.4)	17 (8.3)	103 (50.0)	79 (38.3)	3.23 (0.74)	88.3 [83.3, 92.0]
The call for risk assessments and safeguards in AI life cycle could ensure more reliable and unbiased AI-powered personalized learning tools.	4 (1.9)	16 (7.8)	123 (59.7)	63 (30.6)	3.19 (0.65)	90.3 [85.5, 93.6]
Bridging the AI divide could provide students in developing countries with better access to AI-enabled educational resources.	4 (1.9)	21 (10.2)	117 (56.8)	64 (31.1)	3.17 (0.68)	87.9 [82.7, 91.6]

Note: Values are frequencies with percentages in parentheses. M = mean and SD = standard deviation on a scale from 1 (strongly disagree) to 4 (strongly agree). Agree = agree or strongly agree; CI = confidence interval (Wilson score). Statements are reproduced as worded in the questionnaire and ordered by mean.

Table 5 reports the seven equity statements, with agreement from 87.4% to 93.7%. Respondents most strongly endorsed the view that AI systems respecting linguistic and cultural diversity could improve equity for students from diverse backgrounds ($M = 3.31$, 93.7% agreeing). The statement that bias and discrimination frameworks could reduce unfair treatment of students

from underrepresented groups had the lowest mean in the block ($M = 3.17$). It also had the lowest share of strong agreement of all 41 statements (29.1%), although 90.3% agreed with it. The statement that implementing the resolution could significantly improve educational equity across countries and backgrounds was endorsed by 90.3% ($M = 3.24$).

Table 5. Response distributions for the seven equity statements ($N = 206$)

Statement	Strongly disagree	Disagree	Agree	Strongly agree	$M (SD)$	Agree % [95% CI]
Promoting AI systems that respect linguistic and cultural diversity could improve educational equity for students from diverse backgrounds.	5 (2.4)	8 (3.9)	112 (54.4)	81 (39.3)	3.31 (0.66)	93.7 [89.5, 96.3]
The resolution's emphasis on bridging AI divides can reduce inequalities in access to AI-enabled educational resources across different socio-economic groups.	2 (1.0)	21 (10.2)	107 (51.9)	76 (36.9)	3.25 (0.67)	88.8 [83.8, 92.4]
Implementing the UN AI resolution could significantly improve educational equity for diverse student populations across different countries and backgrounds.	5 (2.4)	15 (7.3)	111 (53.9)	75 (36.4)	3.24 (0.69)	90.3 [85.5, 93.6]
The emphasis on human rights and non-discrimination in AI systems could lead to more inclusive and equitable educational content and assessments.	2 (1.0)	24 (11.7)	105 (51.0)	75 (36.4)	3.23 (0.69)	87.4 [82.1, 91.2]
The call for capacity building and technical assistance to developing countries can enhance access to AI-based education for students in those regions.	5 (2.4)	18 (8.7)	112 (54.4)	71 (34.5)	3.21 (0.70)	88.8 [83.8, 92.4]
The resolution's focus on data governance and trusted cross-border data flows can facilitate sharing of educational resources globally, benefiting students everywhere.	4 (1.9)	20 (9.7)	111 (53.9)	71 (34.5)	3.21 (0.69)	88.3 [83.3, 92.0]
Frameworks to mitigate bias and discrimination in AI systems could help reduce potential unfair treatment of students from underrepresented groups.	4 (1.9)	16 (7.8)	126 (61.2)	60 (29.1)	3.17 (0.65)	90.3 [85.5, 93.6]

Note: Values are frequencies with percentages in parentheses. M = mean and SD = standard deviation on a scale from 1 (strongly disagree) to 4 (strongly agree). Agree = agree or strongly agree; CI = confidence interval (Wilson score). Statements are reproduced as worded in the questionnaire and ordered by mean.

Anticipated Challenges (RQ3)

Table 6 shows that respondents agreed with every listed challenge (87.4% to 91.7%). The highest means were for lack of resources and funding in developing countries ($M = 3.35$, 43.7% strongly agree) and low AI literacy among educators and students ($M = 3.33$, 42.2%). Challenges of a more technical or diplomatic kind had lower means. These were agreeing on interoperable standards across varying national priorities ($M = 3.19$), data limitations for linguistic and cultural diversity ($M = 3.20$), and the technical difficulty of explainability and of identifying systemic bias (both $M = 3.22$).

Table 6. Response distributions for the eight challenge statements ($N = 206$)

Statement	Strongly disagree	Disagree	Agree	Strongly agree	$M (SD)$	Agree % [95% CI]
Lack of resources and funding could hinder developing countries from implementing AI solutions for education as per the resolution	0 (0.0)	17 (8.3)	99 (48.1)	90 (43.7)	3.35 (0.63)	91.7 [87.2, 94.8]
Lack of digital literacy and awareness about AI among educators and students may hinder effective implementation of AI in education	1 (0.5)	17 (8.3)	101 (49.0)	87 (42.2)	3.33 (0.65)	91.3 [86.6, 94.4]
Resistance to change and adoption of new AI technologies could impede achieving inclusive and equitable education goals	3 (1.5)	14 (6.8)	110 (53.4)	79 (38.3)	3.29 (0.66)	91.7 [87.2, 94.8]
Absence of robust digital infrastructure in some regions may pose challenges to accessing AI-enabled educational tools and content.	3 (1.5)	22 (10.7)	103 (50.0)	78 (37.9)	3.24 (0.70)	87.9 [82.7, 91.6]
Ensuring transparency and explainability of AI decision-making in educational contexts may be technically challenging	3 (1.5)	16 (7.8)	119 (57.8)	68 (33.0)	3.22 (0.65)	90.8 [86.0, 94.0]
Mitigating bias and discrimination in AI educational tools could be complicated due to complexities in identifying and addressing systemic biases	2 (1.0)	22 (10.7)	111 (53.9)	71 (34.5)	3.22 (0.67)	88.3 [83.3, 92.0]
Ensuring AI systems respect linguistic and cultural diversity across all communities may be challenging due to data limitations	5 (2.4)	18 (8.7)	113 (54.9)	70 (34.0)	3.20 (0.70)	88.8 [83.8, 92.4]
Developing internationally interoperable standards and frameworks for ethical AI in education could be difficult due to varying national priorities	1 (0.5)	25 (12.1)	113 (54.9)	67 (32.5)	3.19 (0.66)	87.4 [82.1, 91.2]

Note: Values are frequencies with percentages in parentheses. M = mean and SD = standard deviation on a scale from 1 (strongly disagree) to 4 (strongly agree). Agree = agree or strongly agree; CI = confidence interval (Wilson score). Statements are reproduced as worded in the questionnaire and ordered by mean.

Recommended Institutional Measures (RQ4)

Table 7 shows that all eight recommendations were endorsed by 85.4% to 92.2% of respondents. Continuous monitoring and evaluation of AI's impact on learning ($M = 3.33$, 42.2% strongly agree) and institutional policies and guidelines based on the resolution ($M = 3.31$, 41.3%) received the strongest endorsement. Bias testing and human rights impact assessment of educational content and assessments had the lowest mean ($M = 3.15$). It also had the lowest overall agreement of any statement (85.4%), with 14.6% disagreeing or strongly disagreeing. Collaboration between educators, AI experts and local communities on culturally relevant AI applications had the second-lowest mean ($M = 3.17$) and the lowest share of strong agreement in the block (30.1%).

Pattern Across Blocks

Two patterns recur across the blocks. First, statements expressing broad normative commitments, such as human rights, research cooperation, monitoring and institutional policy, attracted the most strong agreement. Second, statements about operational measures against bias were endorsed least strongly. In each of the four blocks that included such a measure, it had the lowest overall agreement or the lowest share of strong agreement (Tables 3 to 5 and 7). Other

accountability measures drew more strong agreement, for example risk assessments across the AI life cycle (35.4%), transparency and human oversight (36.9% and 36.4%) and continuous monitoring (42.2%). Statements on bridging the AI divide (31.6% and 31.1% strong agreement in the principles and content blocks) and on community codesign (30.1%) were similarly low on strong agreement.

Table 7. Response distributions for the eight recommendation statements ($N = 206$)

Statement	Strongly disagree	Disagree	Agree	Strongly agree	$M (SD)$	Agree % [95% CI]
Continuous monitoring and evaluation mechanisms should be established to assess the impact of AI on learning experiences and make necessary adjustments	3 (1.5)	13 (6.3)	103 (50.0)	87 (42.2)	3.33 (0.66)	92.2 [87.8, 95.2]
Educational institutions should develop policies and guidelines based on the UN AI resolution to govern the ethical use of AI in teaching and learning	4 (1.9)	13 (6.3)	104 (50.5)	85 (41.3)	3.31 (0.68)	91.7 [87.2, 94.8]
Curricula should incorporate lessons on AI ethics, privacy, and data rights to promote responsible use of AI technologies among students	3 (1.5)	16 (7.8)	109 (52.9)	78 (37.9)	3.27 (0.67)	90.8 [86.0, 94.0]
Schools should prioritize investment in AI solutions that prioritize transparency, explainability, and human oversight in critical decision-making processes	1 (0.5)	19 (9.2)	111 (53.9)	75 (36.4)	3.26 (0.64)	90.3 [85.5, 93.6]
International cooperation and knowledge sharing of best practices in ethical AI integration should be facilitated among educational institutions globally	2 (1.0)	15 (7.3)	122 (59.2)	67 (32.5)	3.23 (0.62)	91.7 [87.2, 94.8]
Teacher training programs should include modules on AI literacy, ethics, and best practices for leveraging AI tools responsibly in the classroom	3 (1.5)	14 (6.8)	123 (59.7)	66 (32.0)	3.22 (0.63)	91.7 [87.2, 94.8]
Collaboration between educators, AI experts, and local communities should be encouraged to develop inclusive and culturally-relevant AI applications for education	3 (1.5)	20 (9.7)	121 (58.7)	62 (30.1)	3.17 (0.65)	88.8 [83.8, 92.4]
Educational content and assessments should undergo bias testing and human rights impact assessments to align with UN AI ethics principles	5 (2.4)	25 (12.1)	110 (53.4)	66 (32.0)	3.15 (0.72)	85.4 [80.0, 89.6]

Note: Values are frequencies with percentages in parentheses. M = mean and SD = standard deviation on a scale from 1 (strongly disagree) to 4 (strongly agree). Agree = agree or strongly agree; CI = confidence interval (Wilson score). Statements are reproduced as worded in the questionnaire and ordered by mean.

DISCUSSION

The study described how students at one university rated statements derived from the General Assembly's resolution on AI and from possible applications of that resolution to education. Four findings stand out: high endorsement of the resolution's normative commitments, weaker endorsement of operational measures against bias, tempered expectations about equity, and support for institutional measures set out in related UN and UNESCO instruments.

Broad Endorsement of the Resolution's Normative Commitments

Students endorsed every principle of the resolution, most strongly research and international cooperation on AI and human rights across the AI life cycle (RQ1). The prominence of human rights matches the resolution's own emphasis ([United Nations General Assembly, 2024c](#), paras. 5 and 6(l)). It also matches the consultations of the Secretary-General's High-level Advisory Body on AI. There, the guiding principle that anchors AI governance in the UN Charter, international human rights law and the SDGs received the strongest support ([United Nations High-level Advisory Body on Artificial Intelligence, 2024](#), p. 39).

Strong endorsement of research and international cooperation is notable because cooperation has been one of the least codified elements of education-specific AI guidance. In an analysis of six international guidelines on AI in education, international cooperation and human rights each appeared in only two ([Nguyen et al., 2023](#)). In global guidance on AI in K-12 education, solidarity was one of four principles from [Jobin et al.'s \(2019\)](#) framework that did not appear as a heading in any document reviewed ([Adams et al., 2023](#)). The narrower recommendation on cooperation and knowledge sharing among educational institutions was endorsed less strongly ($M = 3.23$, 32.5% strongly agree). The resolution, which foregrounds cooperation with developing countries (para. 4), may therefore address a concern that earlier education guidance left implicit.

Weaker Endorsement of Operational Measures Against Bias

Statements about operational measures against bias were endorsed least strongly, whereas other accountability measures, such as risk assessment, transparency, human oversight and monitoring, drew more strong agreement. Statements on bridging the AI divide and on community codesign showed a similar pattern.

This pattern sits uneasily with the policy literature. The resolution calls for frameworks to analyze and mitigate bias encoded in datasets ([United Nations General Assembly, 2024c](#), para. 6(h)). The Global Digital Compact calls for data standards that prevent bias and discrimination, "including through regular data auditing" ([United Nations General Assembly, 2024b](#), annex I, para. 42(a)). UNESCO guidance recommends validating AI tools for bias before institutions adopt them ([UNESCO, 2023](#), p. 25). Under the African Union's continental AI strategy, member states committed to roll out AI assessments, including UNESCO's ethical impact assessment ([Titareva et al., 2026](#)). Experts in a Delphi study ranked fairness and equity among the three most important and most challenging issues for AI in education ([Ifenthaler et al., 2024](#)). Such measures may be uncommon in practice. A recent review found bias audits largely absent from 16 studies of AI and virtual reality for learners with special educational needs ([Chimbo et al., 2026](#)).

The data cannot distinguish between several possible explanations. Students may have been less familiar with what bias testing or a human rights impact assessment involves, because these are technical procedures named in specialist language and the questionnaire did not measure knowledge. They may have doubted that such procedures are feasible, which would be consistent with their agreement that identifying systemic bias is difficult ([Table 6](#)). The gap between principle and practice offers a third explanation. [Go et al. \(2026\)](#) concluded that the difficulty of responsible AI in education lies mainly in translating principles into practice, and their teachers judged some technical duties unrealistic to perform alone. [Porayska-Pomsta and Asare \(2025\)](#) similarly argue that education policy needs context-sensitive, actionable definitions of principles such as fairness. Bias and fairness are among the most frequently taught topics in published university AI ethics courses ([Hillis et al., 2026](#)), but respondents' exposure to such teaching was not measured. Open-ended items or interviews would be needed to establish which explanation applies.

Tempered Expectations About Equity

Students agreed that applying the resolution could improve educational equity (RQ2). They also agreed that resource shortages, low AI literacy and weak infrastructure could hinder implementation (RQ3). The general statement that the principles could significantly improve the

quality and equity of education delivery drew the most disagreement in its block. Read together, these responses are consistent with conditional optimism.

Recent analyses take a similar position. [Alshamy et al. \(2026\)](#) conclude that AI's contribution to SDG 4 is "conditional rather than automatic," and [Bulathwela et al. \(2024\)](#) argue that AI alone will not democratize education. [Adetayo \(2026\)](#) recommends that institutions pair deep AI literacy with enforceable institutional policy, because interventions aimed only at individual students are likely to keep underperforming where infrastructure, cost and enforcement are left unaddressed. UNESCO's teacher competency framework states that AI is unlikely to solve problems such as inadequate school infrastructure or teacher shortages ([UNESCO, 2024b](#), p. 45). Experts surveyed by the UN advisory body rated the positive impact of AI on SDG 4 to date on a scale from 1 (none) to 5 (transformative). The mean was 2.42 in high- and upper-middle-income countries, against 2.09 in lower-middle- and low-income countries. They expected the gap to widen over the following 3 years (2.67 against 2.11; [United Nations High-level Advisory Body on Artificial Intelligence, 2024](#), Annex F). In July 2024 the General Assembly itself noted that AI and other digital divides "continue to widen" ([United Nations General Assembly, 2024a](#)).

Within the equity block, the statement on linguistic and cultural diversity received the strongest support. This provision has a direct basis in the resolution, which promotes AI systems that preserve linguistic and cultural diversity and take multilingualism into account in training data ([United Nations General Assembly, 2024c](#), para. 6(m)). UNESCO calls for AI education resources in local and Indigenous languages ([UNESCO, 2022](#), para. 106). The problem is acute for low-resource languages (Choudhry, 2023, as cited in [Perkins & Roe, 2025](#); [Marivate et al., 2025](#)). Students' agreement that data limitations make linguistic diversity hard to achieve ([Table 6](#)) is consistent with these accounts.

Support for Institutional Measures

The recommendations most strongly endorsed were continuous monitoring and evaluation of AI's effects on learning and institutional policies based on the resolution (RQ4). UNESCO's instruments set out both measures for education. The Recommendation on the Ethics of AI asks Member States to monitor and evaluate AI policies with quantitative and qualitative methods and with targets for disadvantaged and marginalized groups ([UNESCO, 2022](#), paras. 131–134). UNESCO's guidance on generative AI sets out institutional responsibilities, including auditing tools and protecting users' well-being ([UNESCO, 2023](#), p. 23). Experts in AI in education have called for continuous study of the effects of AI systems ([Ifenthaler et al., 2024](#)). Academic integrity specialists recommend institutional policies that set default rules and guide the acknowledgment of AI use ([Foltynek et al., 2023](#)).

Students also endorsed AI ethics, privacy and data rights in the curriculum and AI literacy in teacher training, in line with their rating of low AI literacy as a leading challenge. UNESCO's competency frameworks specify what such provision could contain. The student framework has four aspects across three progression levels, including an ethics of AI aspect that moves from embodied ethics to ethics by design ([UNESCO, 2024a](#)). The teacher framework has five aspects across three levels ([UNESCO, 2024b](#)). The student framework was designed for school curricula, so its use in universities requires adaptation. The evidence also points to a gap in governance content. Governance and regulation were among the least taught themes in the university AI ethics education studies reviewed by [Hillis et al. \(2026\)](#). In 2022 only about 15 countries were developing or implementing AI curricula in school education ([UNESCO, 2024a](#), p. 12), and seven had AI frameworks or programs for teachers ([UNESCO, 2024b](#), p. 13). Many university teachers also lack the digital competence and disability awareness needed to include students with disabilities ([Fernández-Cerero et al., 2023](#)).

Community collaboration in designing culturally relevant AI applications was among the less strongly endorsed recommendations. UNESCO guidance nonetheless recommends that AI in education be codesigned by teachers, learners and researchers ([UNESCO, 2023](#), p. 29). [Marivate et al. \(2025\)](#) argue that local voices must be central to inclusive AI in education, and [Tomašev et](#)

al. (2020) argue that AI applications for the SDGs work best through long-term partnerships with the communities they serve. Participatory design may be less visible to students than policies and curricula, or the statement may have been read as a matter for developers. In either case, the case for codesign may need to be made explicitly to students.

Contribution to Principle-Based AI Ethics

Principle-based accounts of AI ethics find convergence on principles and divergence in how they are implemented (Jobin et al., 2019), and research on AI in education places the main difficulty in translating principles into practice (Go et al., 2026). The present findings show a parallel pattern in students' responses. Agreement was strongest for commitments stated as principles and weaker for the procedures that put fairness into practice, such as bias testing and impact assessment, and for community codesign. When institutions consult learners, as UNESCO (2023) recommends, they may need to ask about principles and about the procedures that implement them separately, because support for the first does not guarantee equal support for the second.

Limitations

The findings have several limitations. The data come from 206 students at a single anonymized university, so they should not be generalized to other institutions. With a response rate of 77.2%, nonresponse bias cannot be ruled out, and an online survey may underrepresent students with poor connectivity, who are among those most affected by the divides the resolution addresses. The instrument was developed for the study, its validity evidence is limited to expert review, and reliability coefficients are not reported. All statements were positively worded, and respondents' knowledge of the resolution was not measured, so high agreement may partly reflect acquiescence, a limitation shared by self-report measures in AI ethics education research (Hillis et al., 2026; Wiese et al., 2025). Finally, the cross-sectional, descriptive design provides no evidence about the effects of the resolution or of any measure it recommends.

CONCLUSION

This study asked how students at one university respond to the General Assembly's resolution on AI when its principles are applied to education. Students endorsed all of the resolution's principles (RQ1) and agreed that applying them could improve educational content, delivery and equity (RQ2), while expecting funding shortages and low AI literacy to stand in the way (RQ3). They gave their strongest support to continuous monitoring and institutional policy and their weakest to bias testing and community codesign (RQ4). The study provides student-level evidence on the resolution. Its main contribution is to show that student support for the resolution's principles does not extend with equal strength to the procedures that implement them. Institutions applying the resolution in education can draw on the education-specific detail in related UN and UNESCO instruments.

Implications for Institutions and Policymakers

The following implications draw on the findings and related literature and are addressed to institutional leaders and national education authorities.

1. Make bias auditing and impact assessment understandable to students. These measures received the weakest endorsement but are central to UNESCO guidance and regional commitments. Institutions that adopt them could explain what they involve and why, and could involve students in reviewing the results.
2. Teach students how AI governance instruments work. Students' endorsement of the resolution's principles offers a starting point, and governance is among the least taught topics in published university AI ethics courses. Curricula and teacher development based on the UNESCO competency frameworks could cover how instruments such as the resolution, the Global Digital Compact and the UNESCO Recommendation are made, what they require and how they are monitored.

3. Treat resources and AI literacy as preconditions. Funding and low AI literacy were students' strongest concerns. Institutional AI strategies could budget for connectivity, devices and staff development before scaling AI tools, and national authorities could direct capacity-building support under resolution 78/311 and the Global Digital Compact toward these gaps.
4. Build monitoring and evaluation into institutional AI policy. Students most strongly endorsed continuous monitoring and institutional guidelines. Policies could specify what will be monitored, how results will be disaggregated for disadvantaged students and how students will be informed of the findings.
5. Prioritize linguistic inclusion. Students strongly endorsed AI that respects linguistic and cultural diversity while recognizing data limitations. Institutions in multilingual settings could support the development and evaluation of tools in local languages and report when tools perform poorly for particular language groups.

Suggestions for Further Research

Further research should address the limitations of this study. Surveys that measure students' knowledge of the resolution and their prior experience with AI would show whether agreement reflects informed judgment. Negatively worded items, ranking or trade-off tasks and open-ended questions would produce more differentiated evidence and help explain the weaker endorsement of measures against bias. Comparisons of students, teachers, administrators and policymakers, and comparisons across institutions and countries in the Global South, would show whether the patterns found here are specific to one setting. Longitudinal or quasi-experimental designs that link institutional AI policies to learning and equity outcomes are needed to assess the effects of the resolution in education.

DECLARATIONS

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