ASCILITE 2025

Future-Focused:

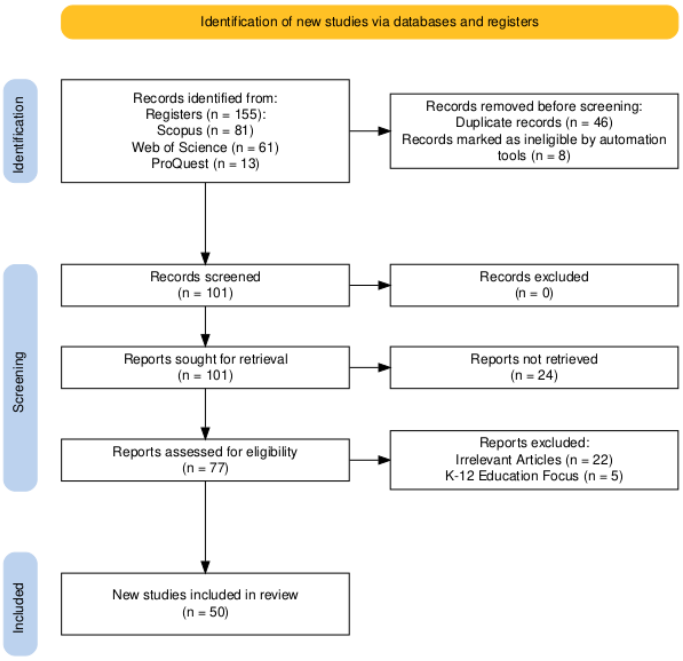
Educating in an Era of Continuous Change

AI meets AI: A systematic review of assessment innovation and academic integrity in the age of artificial intelligence

Moh Farah, Alvedi Sabani, Dian Dewi, Putra Catyanadika
RMIT University

The rise of generative artificial intelligence (GenAI) is prompting a fundamental review of assessment design and academic integrity in higher education. This systematic review synthesises insights from 50 peer-reviewed studies and policy documents to explore how GenAI is reshaping pedagogical practice, institutional policy, and integrity norms. Evidence reveals a broad transition toward authentic, process-based, and oral assessments, alongside increased use of hybrid human–AI feedback mechanisms. A growing emphasis on AI literacy for students and staff also signals a shift in pedagogical priorities. However, the review identifies persistent tensions, including ethical ambiguity, fragmented policy responses, and over-reliance on detection tools with limited effectiveness. A distinctive contribution of this study is the Stakeholder Relevance Matrix, which highlights how emerging practices in assessment innovation, feedback design, and policy clarity unequally affect students, educators, and institutions. This matrix surfaces disparities in responsibility, vulnerability, and agency, underscoring the need for inclusive and values-driven responses. The review calls for a move from reactive enforcement toward integrity-by-design approaches that embed ethical and pedagogical principles from the outset. It concludes with forward-looking propositions to guide institutional policy and future research, offering a roadmap for building resilient, equitable, and ethically grounded assessment systems in the age of GenAI.

Keywords: Generative Artificial Intelligence (GenAI), Assessment Innovation, Academic Integrity, Higher Education Policy



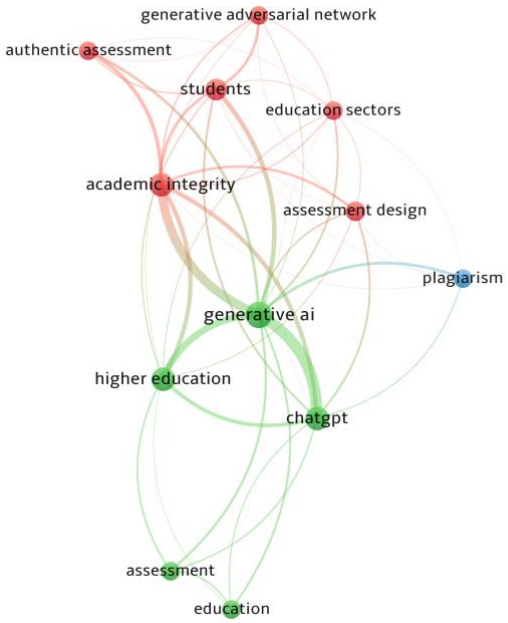
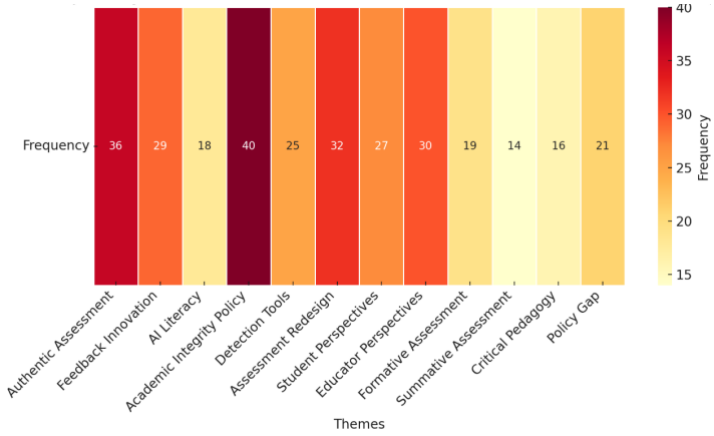


Figure 1 PRISMA Flow and Figure 2 Co-occurrence of the dataset's keywords (n=50)



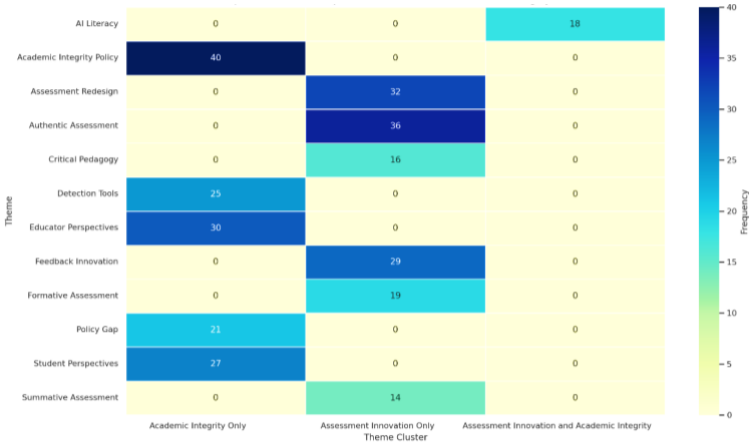


Figure 3 Thematic distribution of keywords identified in the literature reviewed and Figure 4 Thematic clustering of assessment innovation and academic integrity

Students are most affected by themes such as AI-augmented feedback, ethical grey areas, and AI literacy initiatives, reflecting their need for clear guidance, transparency, and ethical understanding when using AI tools.

Educators experience high impact from authentic assessment redesign, process-based and oral assessments, and AI literacy, as they carry the main responsibility for adapting assessment practices and guiding ethical use.

Institutions are most strongly influenced by policy clarity, detection challenges, and AI literacy implementation, highlighting their role in governance, infrastructure, and ensuring fair, transparent assessment systems.

Theme	Students	Educators	Institutions
Authentic & Higher-Order Skill Assessments	●●●	●●●●	●●
Oral & Interactive Assessment Formats	●●	●●●	●●
Process-Oriented & Individualized Assessments	●●●	●●●●	●●
AI-Augmented Feedback & AI-Personalized Learning Support	●●●●●	●●●●	●●
Student Perceptions and Ethical Grey Areas	●●●●●	●●	●●
Institutional Policy Responses & Guideline Clarity	●●●●	●●●●	●●●●●
Challenges in Detection & Technological Safeguards	●●●	●●●	●●●●
Education, Training & AI Literacy Initiatives	●●●●●	●●●●●	●●●●

The number of black circles (●) indicates the relative degree of relevance or impact of each theme across stakeholder groups, based on the literature review:
● = Low Relevance
●● = Some Relevance
●●● = Moderate Relevance
●●●● = High Relevance
●●●●● = Very High Relevance

Table 1: Stakeholder relevance matrix for thematic findings

References

Aditya, B. R., Ferdiana, R., & Kusumawardani, S. S. (2022). Identifying and prioritizing barriers to digital transformation in higher education: a case study in Indonesia. International Journal of Innovation Science, 14(3/4), 445-460.

Amrane-Cooper, L., Hatzipanagos, S., Marr, L., & Tait, A. (2024). Online assessment and artificial intelligence: Beyond the false dilemma of heaven or hell. Open Praxis, 16(4), 687-695.

Bearman, M., Tai, J., Dawson, P., Boud, D., & Ajjawi, R. (2024). Developing evaluative judgement for a time of generative artificial intelligence. Assessment & Evaluation in Higher Education, 49(6), 893-905.

Bower, M., Henderson, M., Slade, C., Southgate, E., Gulson, K., & Lodge, J. (2025). What generative Artificial Intelligence priorities and challenges do senior Australian educational policy makers identify (and why)? The Australian Educational Researcher, 1-26.

Chen, Y., Jensen, S., Albert, L. J., Gupta, S., & Lee, T. (2023). Artificial intelligence (AI) student assistants in the classroom: Designing chatbots to support student success. Information Systems Frontiers, 25(1), 161-182.

ASCILITE 2025

Future-Focused:

Educating in an Era of Continuous Change

Dai, Y., Lai, S., Lim, C. P., & Liu, A. (2024). University policies on generative AI in Asia: Promising practices, gaps, and future directions. Journal of Asian Public Policy, 1-22.

Farah, M., Sabani, A., Dewi, D. & Catyanadika, P. (2025, Nov 30 – Dec 3). AI meets AI: A systematic review of assessment innovation and academic integrity in the age of artificial intelligence. [Poster Presentation]. Australasian Society for Computers in Learning in Tertiary Education Conference, Adelaide, Australia. https://doi.org/10.65106/apubs.2025.2708