Supporting GAI Literacy in HE Assessment and Feedback

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Inrap

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GAI and Assessment

Waring, M., & Evans, C. (2024). Facilitating students' development of assessment and feedback skills through critical engagement with generative artificial intelligence.

DOI: 10.13140/RG.2.2.19781.83685

In C. Evans and M. Waring. (2024). (Eds.), *Research Handbook on Innovations in Assessment and Feedback in Higher Education: Implications for Teaching and Learning*. Elgar Publishing.

In this session we explore:

- What a **principled approach** to the integration of GAI within assessment and feedback is?

- The **development needs of students and staff** in using GAI effectively?

Discussion

Challenges in relation to GAI and **discipline / professional** knowledge.

The best-performing students will be those that develop the critical thinking and information literacy skills to appropriately enter inputs and analyse the outputs that ... AI tools produce.

Neumann et al., 2023

The best-performing higher education institutions will be those that systematically integrate GAI within assessment and feedback, and train staff and students in how to do this effectively.

Evans & Waring, 2024

GAI-Empowered Learners as Leaders

The learner takes **agency to work as the leader of their own learning**, filtering and making sense of information and making risk-based decisions on reliability and validity of AI mediated learning BUT needs sound domain and professional knowledge to do this.

- AI as a tool to **augment** human intelligence.

- Creating **synergies** between the learner, teacher, information and technology.

- AI systems support teachers and learners through providing **personalised supports**.

Ouyang & Jiao (2021)

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Autonomy and Agency in Assessment

Autonomy
The ability to act free of outside influences by being able to make choices based on what one desires without undue constraints
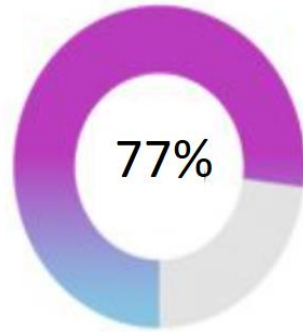
Agentic Engagement
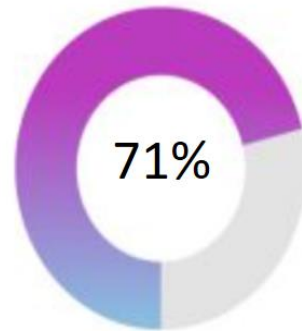The ability to adapt the environment to make it more conducive to support one's learning

Agency
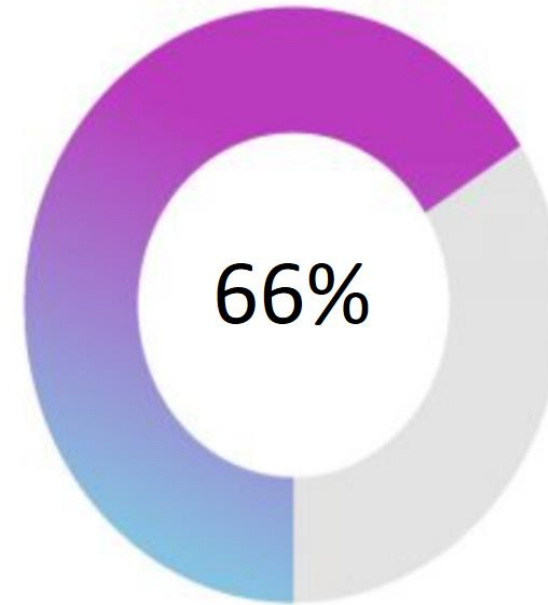Being in control of one's actions in managing a context

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The New Hiring Imperative

AI aptitude takes center stage.

77%

Leaders say early-in-career talent will get greater responsibilities due to AI

71%

Leaders are more likely to hire a less experienced candidate with AI skills than a more experienced one without them

66%

Leaders would not hire someone without AI skills

2024 Work Trend Index Annual Report
From Microsoft and Linkedin

Survey question:
To what extent do you agree or disagree with the following statements about generative artificial intelligence's (AI's) impact on skills?
- I would be more likely to hire a less experienced candidate with AI skills than a more experienced candidate without AI skills
- In considering job candidates, I would not hire someone without AI skills
- Because they can delegate more work to AI, early-in-career talent with be given greater responsibilities

May 9, 2023

Microsoft

- How is GAI impacting my disciplines / profession?

- What are the skill sets my students need in the future, and how do I best support their development of these?

- Is assessment aligned to measure these skill sets?

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2023 Work Trend Index: Annual Report

Will AI Fix Work?

The pace of work is outpacing our ability to keep up. AI is poised to create a whole new way of working.

Illustration by Jon Han with inspiration from Bing Image Creator

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Higher Education Policy Institute

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HEPI Policy Note 61

Student Generative AI Survey 2025

Josh Freeman

February 2025

The HEPI 2025 report found (n= 1041 undergraduate students) that:

- **92%** of students reported using AI in some form, up from **66%** in 2024.

- **88%** had used GAI for assessments, up from **53%** in 2024.

- **18%** – had included AI-generated text directly in their work.

- **80%** agreed their institution had a clear AI policy, and **76%** said their institution would spot the use of AI in assessed work.

https://www.hepi.ac.uk/2025/02/26/student-generative-ai-survey-2025/

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68% of students 'strongly agree or agree' that it is essential to have good AI skills, but only 36% had received support from their institution to develop them.

Digital divides are increasing between women and men, and according to socio-economic status, subject.

42% of students suggested staff are 'well-equipped' to help them with AI, compared with just 18% in 2024.

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What puts you off using AI? N = 1041	All	Men	Women
Being accused of cheating by my institution	53%	45%	59%
Getting false results / hallucinations	51%	48%	53%
Getting biased results	37%	37%	37%
My institution discourages or bans the use of AI	31%	26%	36%
Not enough is done to protect my data privacy	23%	24%	22%
It is not fair to other students who do not use AI	21%	20%	20%
Tools are too expensive	20%	22%	18%
I will learn more if I do not use AI	18%	17%	18%
The use of data to train AI models without the authors' consent	16%	17%	14%
The environmental impact	15%	16%	13%
Nothing: I am fully comfortable using AI tools	4%	4%	3%

How are we using (G)AI in HE?

- Accessing information

- Designing assessment tasks

- Providing feedback to students

- Marking and moderation

- Ensuring academic integrity

- Analysis of data to assess fairness

- To support learning (i.e., demonstrating the impacts of using specific strategies on outcomes)

Holistic design of course assessment?

Integrity of assessment design?

A Principled Approach to the use of GAI

1. The importance of an underpinning knowledge of effective assessment and feedback

2. A clear vision of what empowered AI learners of the future look like

3. The centrality of accessibility and inclusion in considering all aspects of generative AI

4. Collaboration between all stakeholders to support shared understandings of AI and one's role in ensuring informed and ethical use of it, aligned with clear institutional and discipline guidelines on AI use

A Principled Approach to the use of GAI

5. Emphasis on the quality of assessments and assessment processes: Reliability and validity are centred with emphasis on authentic and holistic approaches to assessment

6. Investment in AI literacy training for educators and students

7. Ongoing and agile monitoring and review of AI tools and approaches from inclusion, effectiveness, and efficiency perspectives

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Self-regulatory Skills and GAI

- Accurate analysis of the **requirements of a task**.

- **Planning and goal-setting** to achieve goals.

- Activation of **metacognitive, cognitive and affective** strategies to complete tasks.

- Ongoing **monitoring and evaluation** to stay focused and adapt strategies where necessary to stay on track.

- **Evaluative judgement** regarding the quality of work.

- **Self-reflection and reflexivity** to review performance and make adjustments for the next task.

Explicit teaching of GAI Literacies

Using the EAT Framework
(Evans, 2016, 2018)

Key principles from Evans (2013): https://inclusivehe.org/wp-content/uploads/2022/12/appendix-a_effective-assessment-feedback_eat-3.pdf

The EAT Framework

Enhancing assessment feedback practice in higher education

https://inclusiveheorg.files.wordpress.com/2022/12/eat_framework_12_2022.pdf

Carol Evans

Review of Educational Research

Making Sense of Assessment Feedback in Higher Education

Carol Evans

First Published March 1, 2013 | Research Article | Check for updates
https://doi.org/10.3102/0034654312474350

Abstract

This article presents a thematic analysis of the research evidence on assessment feedback in higher education (HE) from 2000 to 2012. The focus of the review is on the feedback that students receive within their coursework from multiple sources. The aims of this study are to (a) examine the nature of assessment feedback in HE through the undertaking of a systematic review of the literature, (b) identify and discuss dominant themes and discourses and consider gaps within the research literature, (c) explore the notion of the feedback gap in relation to the conceptual development of the assessment feedback field in HE, and (d) discuss implications for future research and practice. From this comprehensive review of the literature, the concept of the feedback landscape, informed by sociocultural and socio-critical perspectives, is developed and presented as a valuable framework for moving the research agenda into assessment feedback in HE forward.

Keywords

assessment, feedback, higher education, feedback gap, feedback landscape

https://journals.sagepub.com/doi/full/10.3102/0034654312474350

Relevance / Quality matrix

- **High Relevance, Low Quality** (upper left)
- **High Relevance, High Quality** (upper right)
- **Low Relevance, Low Quality** (lower left)
- **Low Relevance, High Quality** (lower right)

Assessing the relevance & pedagogical quality of GAI within HE assessment

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AD4: Ensure ongoing evaluation
Use AI to inform the effectiveness of assessment and feedback approaches as a learning tool for students and educators. Provide training in how to use big data effectively to inform assessment decisions; accessing, owning and controlling data.

AD 3: Ensure access and equal opportunities
Use AI to personalise learning opportunities, to ensure access, to direct to high quality resources and to better understand individual learning and the role of assessment in this.

AD 2: Promote authentic / deep approaches to assessment
Place emphasis on student curation of original outputs with emphasis on authentic assessment and the valuing of process and outcomes to demonstrate self-authorship and ownership of learning.

AD 1: QA literacy
Train students and educators in the ethics of AI use and academic integrity. Require students to declare how they have used AI.

AF 4: Promote development of students' self-evaluation skills
Provide multiple opportunities for students to constantly compare work to be able to calibrate standards for themselves. Work with students to ensure ongoing analysis of achievements.

AF 3: Prepare students for meaningful dialogue / peer engagement
Utilise AI to support peer learning opportunities and assessment through unpacking group learning processes with students.

AL 1: Clarify what constitutes good
Ensure learning outcomes emphasise the acquisition of high level self-regulatory competencies including AI skills. Use AI to provide multiple examples of work to support critical reflection on what good looks like. Teach students to use chat bots responsibly.

AL 2 Clarify how assessment elements fit together
Use AI to highlight the links between assessments across a programme and to support students' goal-setting priorities.

AL 3: Clarify student & staff entitlement
Ensure educator and student partnership in navigating AI, and in the development of shared expectations about its use. Provide explicit guidance about how AI tools can be used.

AL 4: Clarify the requirements of the discipline
Use AI to signpost key concepts and the relationships between them; align educational responses to AI with all stakeholders.

AF 1: Provide accessible feedback
Use AI to provide focused feedback and train students in how to get the most from AI through the way in which they ask for and interrogate feedback.

AF 2: Provide early opportunities for students to act on feedback
Utilise AI in developing multiple questioning opportunities to support student understanding of what they know and don't know. Use AI to test students' baseline understanding of concepts and to support personalised feedback. Engage students in enhancing AI capacity within disciplines.

ASSESSMENT DESIGN

ASSESSMENT LITERACY

ASSESSMENT FEEDBACK

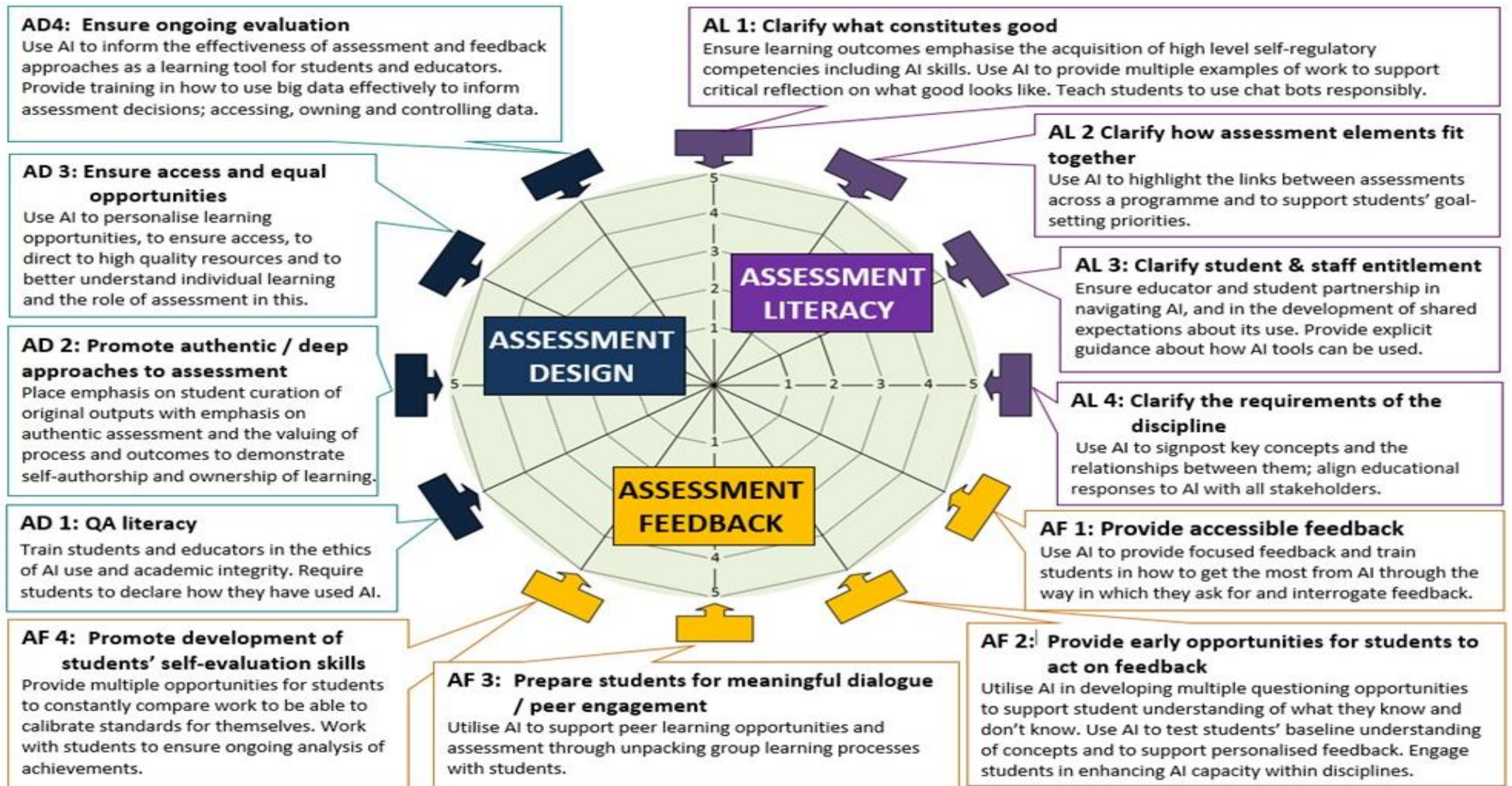Figure 1: Using AI to promote students' self-regulatory skills in assessment and feedback

Authenticity: Quality of Assessment Design

Relevance	**...of assessment to 'real life' contexts and imagined futures.**
Credibility	Nature of tasks reflects professional life contexts.
Ownership and **Self-/co-authorship**	Enables the learner to draw on their knowledge and skills and engage in the creative process to **'own'** the work.
Meaningful	Has relevance to the learner in the moment and beyond the immediate context of assessment.
Reliable	Assesses **process and product** so reflects the steps in the journey the learner has made.
Valid	Assessment types make sense in accurately assessing the knowledge and skills required.
Values	Assessment reflects the views and values of the learner.

Key Considerations in Advancing GAI skill sets

- How do we best integrate GAI competency development into curriculum design?

- What aspects of assessment can we 'handover to AI'?

- How do we best train students in knowing what strategies to use in which situations and how to use them well?

- How do we train academics so they can model the approaches that they want students to emulate, and provide opportunities to test and refine such skills within the curriculum?

Supporting Educator GAI Capabilities (1)

- **Beliefs**: Conceptions of GAI and the student role in assessment

- **Competence & Confidence** in using GAI and understanding of good assessment practice

- **Training** wants and needs and capacity to engage

- **Quality of GAI training and subject specific** nature of it it

Supporting Educator GAI Capabilities (2)

- **Capability, efficiency, & agility** of **university assessment infrastructure**

- **Discipline/profession needs**

- **Effectiveness of collaboration with industry/business**

- **Portability of approaches** across sites/platforms/users

- **Reducing digital divides** (subject/sex/socio-economic variables)

Disciplinary Specific GAI Skill Sets

- How is GAI (AI) informing the development of your subject/profession (e.g., precision medicine).

- What are the high level competencies students in your subject will need most?

- What does a GAI competent student look like in your discipline?

- How does this impact how you assess?

In Summary

- **Rethinking assessment:**

  How can GAI free up space to think about the knowledge and skills we want students to focus on?

  What should we no longer be assessing and where should we be focusing assessment.

- **Pedagogic Base:**

  Any conversation around assessment needs to be grounded in principles of effective assessment and feedback.

  GAI is another tool in the repertoire of assessment. How can we ensure it is liberating?

- **High level metacognitive skills:**

  In conversations about GAI Literacy Skills we need to focus on what the fundamental self-regulatory skills are we want our students to be developing and why.

Thank you

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Inclusivehe.org
Promoting equality of opportunity in higher education

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