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Engaging students, assuring learning: Practical strategies for meaningful assessment in the age of AI

Chi Baik

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USP Learning and Teaching Forum

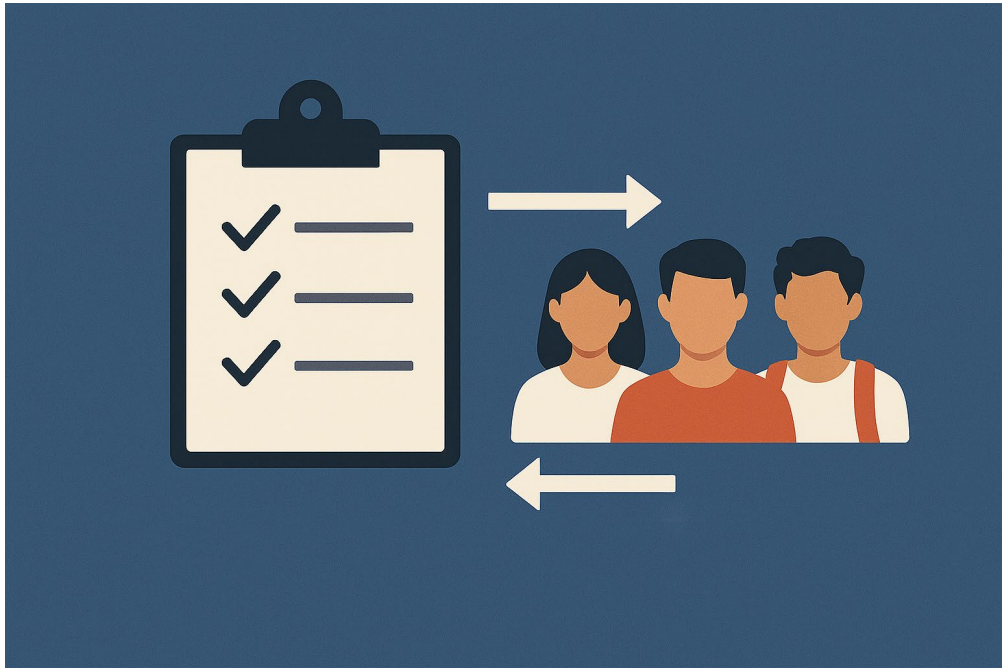
Laucala Campus, Fiji

3 Truisms

1. Assessment drives student learning

2. Assessment is a highly contentious topic

3. Assessment lags behind (in terms of development/sophistication) other aspects of teaching and learning in higher education



The will to learn: motivation and meaning

Motivation

influences *why* students study, how much effort they put in, and how long they persist

Meaning

Sense of purpose, value or personal significance (and worth beyond the self)

Key assessment concept

Validity

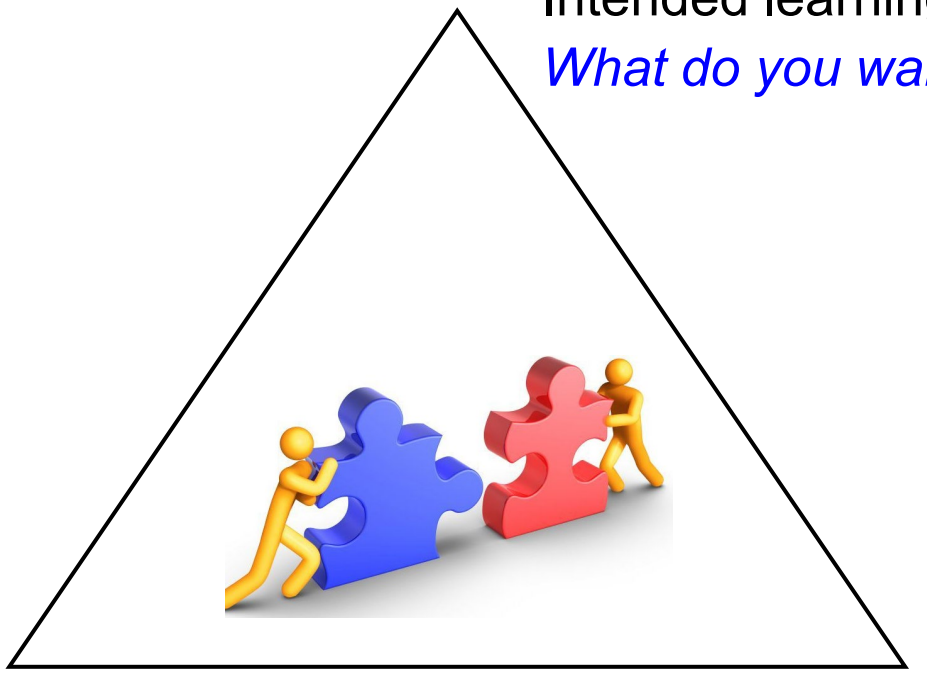
1. Are we assessing what we ***say*** we're assessing?
2. Are we assessing what we ***should*** be assessing?
3. …And are our judgements based on trustworthy evidence?

Assessment in the context of curriculum design

Constructive Alignment (Biggs, 1996)

Intended learning outcomes

What do you want students to be able to do?



Assessment

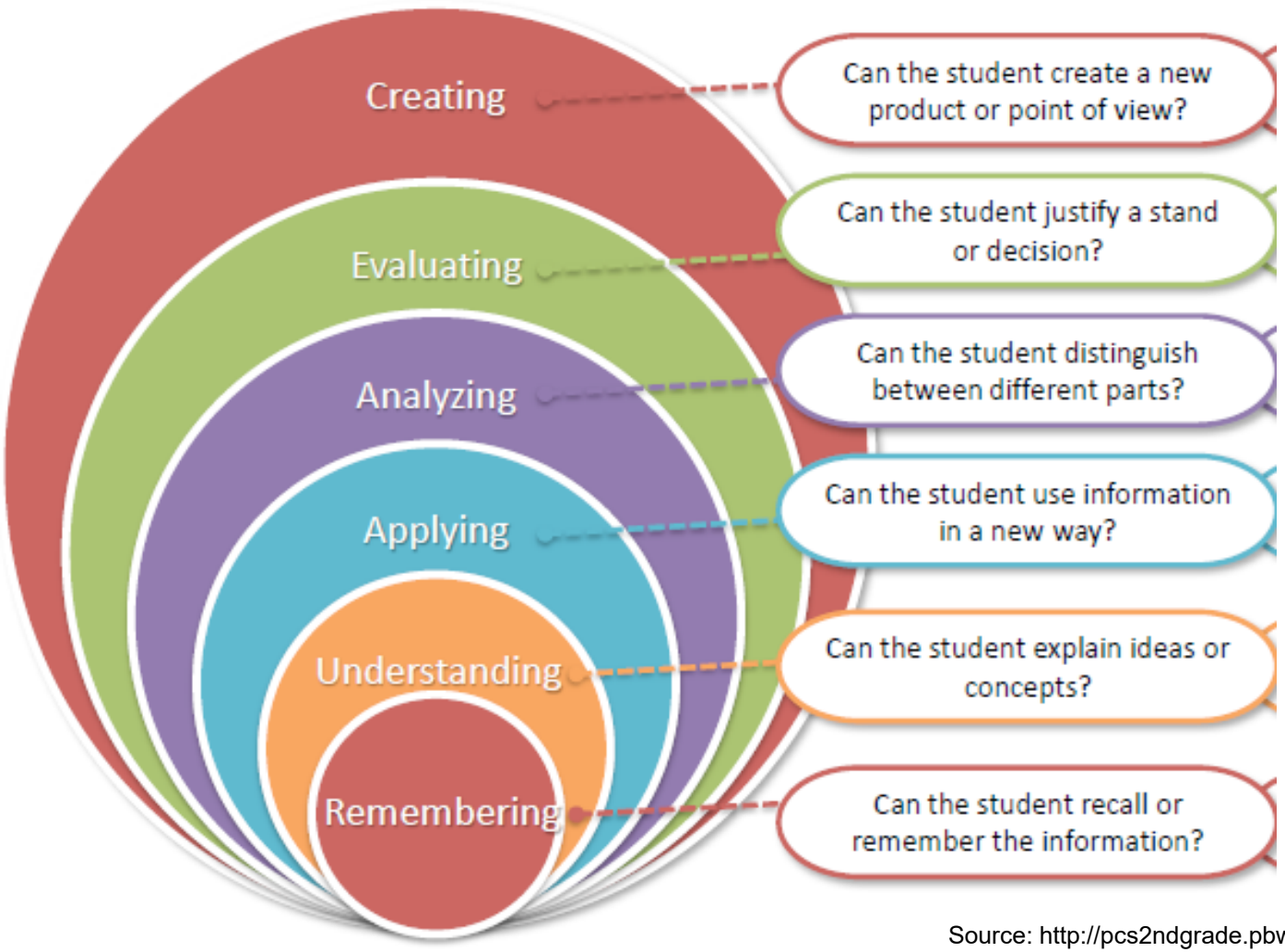
To what extent or how well have students met the objectives?

T & L activities

How are you going to help students realize the objectives?

Assessing learning in *higher* education

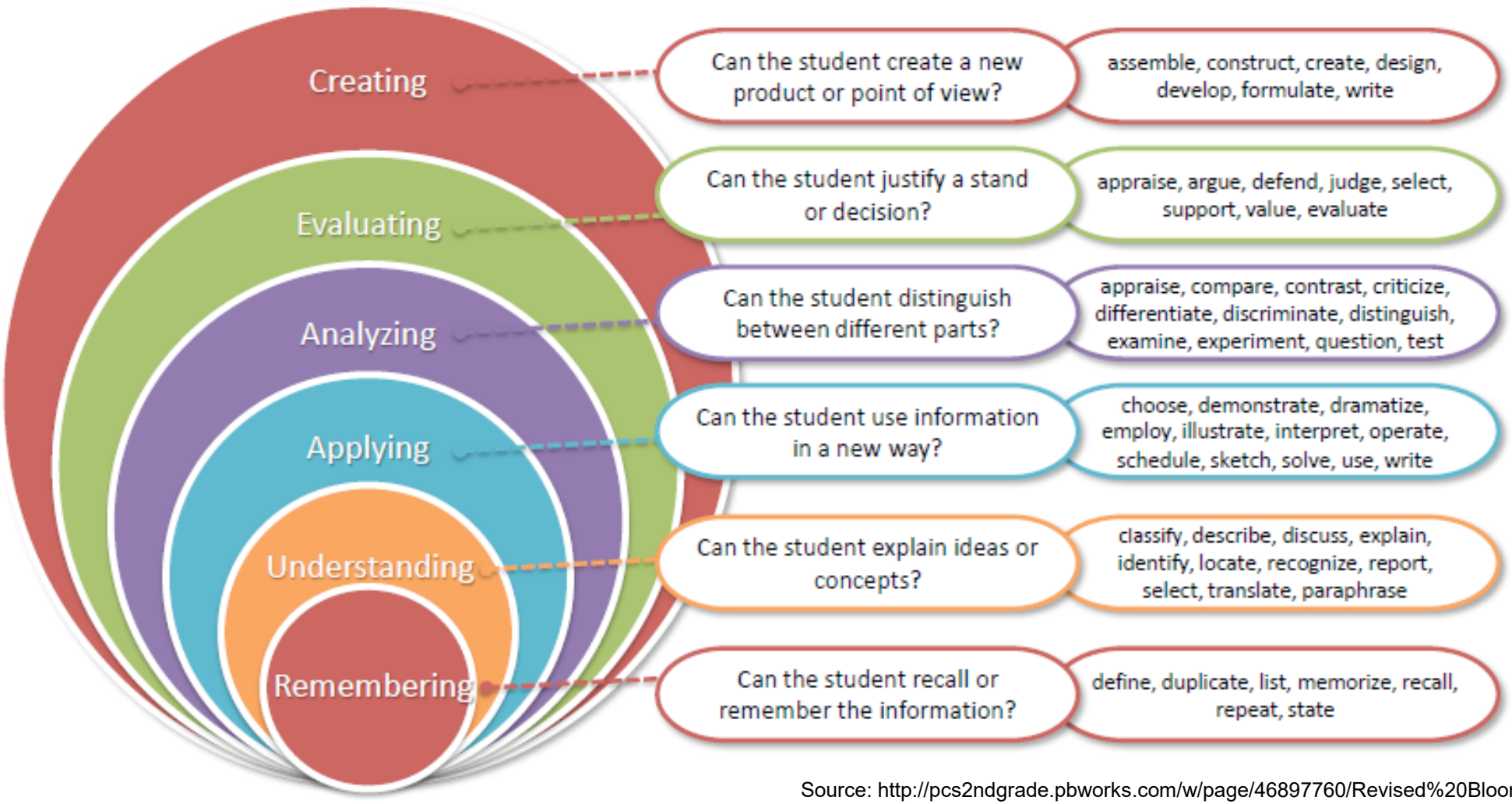
Bloom's Taxonomy (Revised)



Source: http://pcs2ndgrade.pbworks.com/w/page/46897760/Revised%20Bloom%27s%20Taxonomy

Assessing learning in *higher* education

Bloom's Taxonomy (Revised)



Source: http://pcs2ndgrade.pbworks.com/w/page/46897760/Revised%20Bloom%27s%20Taxonomy

Capabilities

- Integrated knowledge, skills, values, and dispositions.
- Enable graduates to act effectively and ethically in complex contexts.
- Go beyond competencies — applying learning with judgement and adaptability.

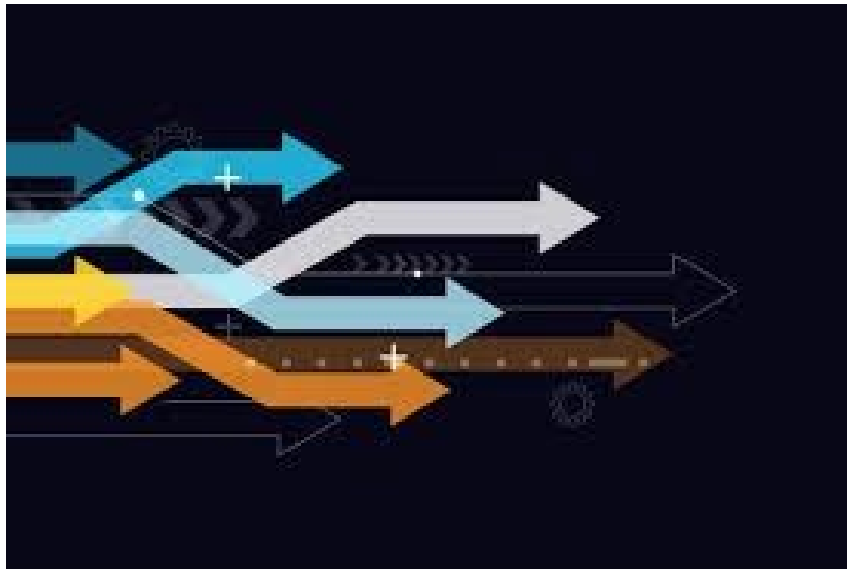
Core Capabilities in Higher Education

- Critical and analytical thinking
- Communication and collaboration
- Ethical and intercultural understanding
- Creativity and innovation
- Digital and information literacy
- Self-regulation and resilience
- Professional and global citizenship

Current trends and future directions

More emphasis on:

- Authentic tasks - Assessment designed to mirror workplace (or community) contexts and challenges
- Collaborative learning and group projects
- Skills for employability (‘transferable’ skills)
- Peer assessment and peer review
- Portfolios
- Reflective tasks



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Validity

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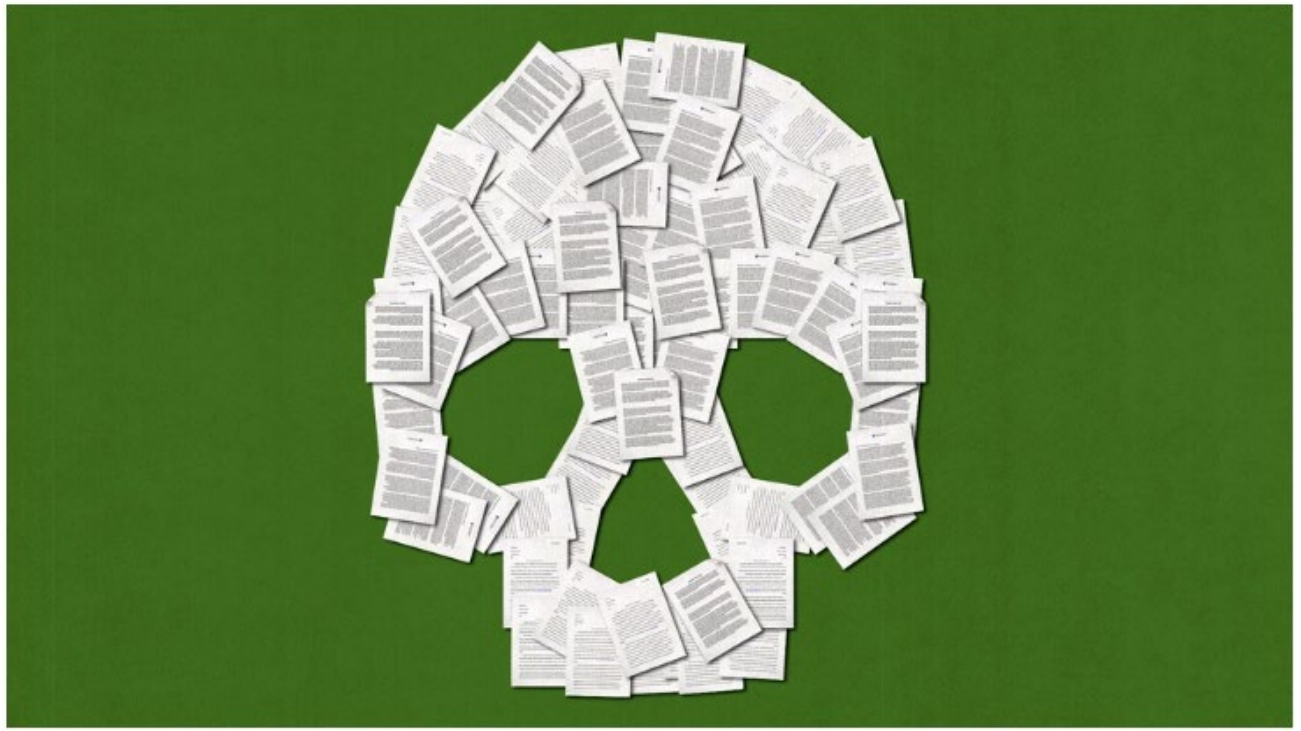
TECHNOLOGY

The College Essay Is Dead

Nobody is prepared for how AI will transform academia.

By Stephen Marche

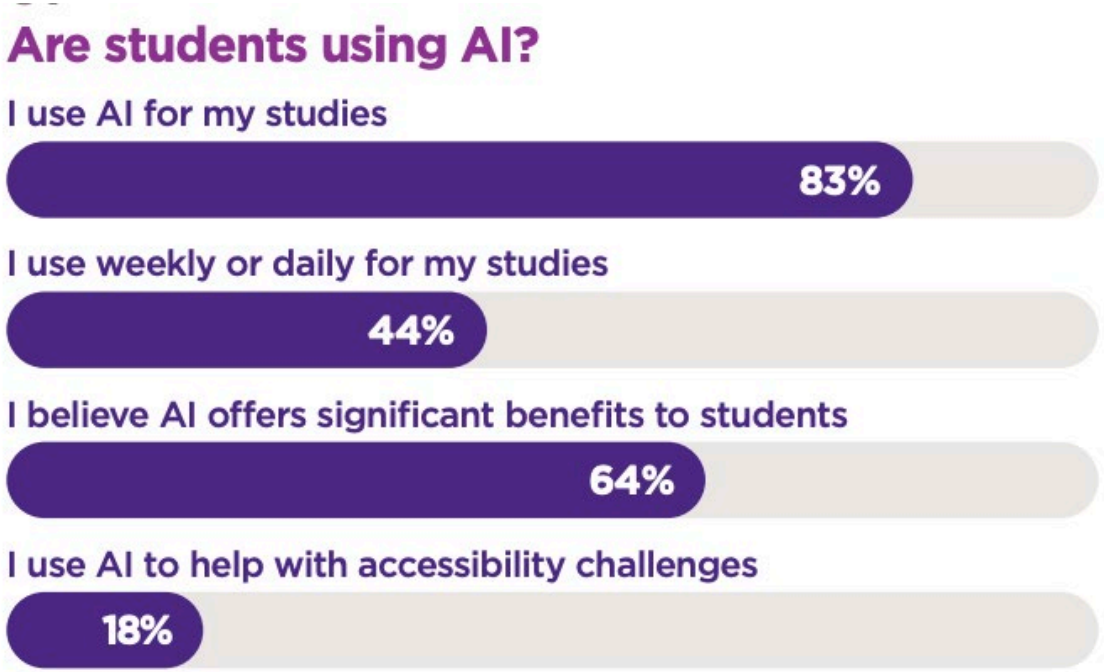


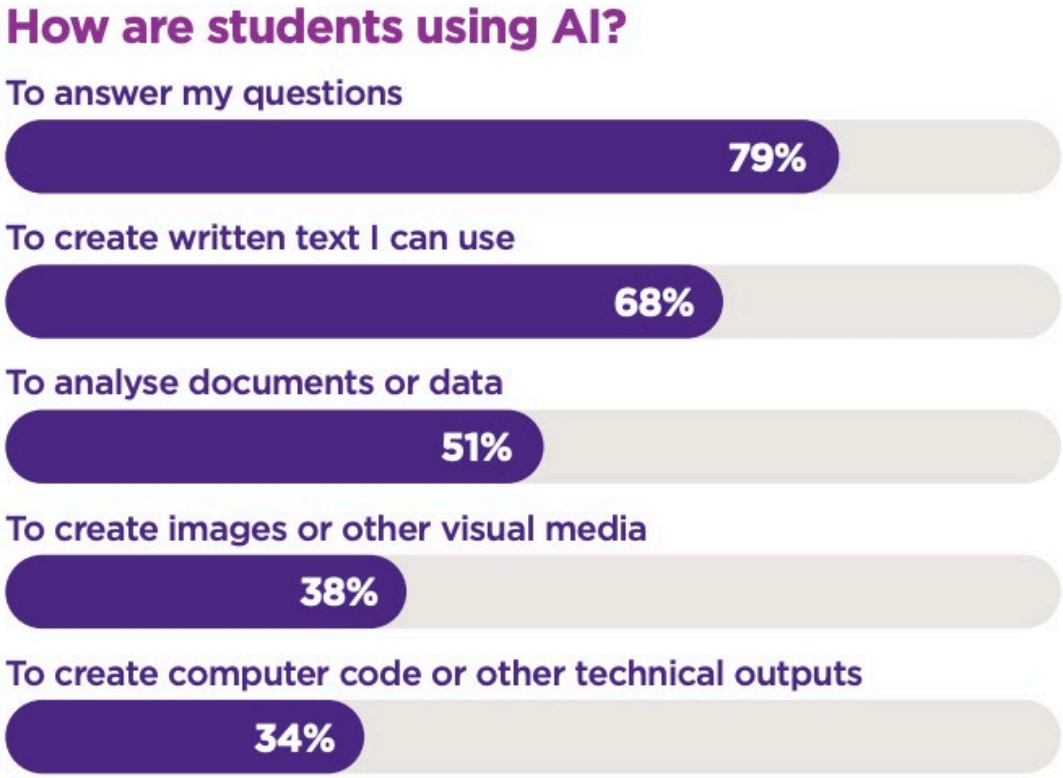
Paul Spella / The Atlantic; Getty

DECEMBER 7, 2022 SHARE

How students are using Gen AI

N =8028 students from 4 universities, 2024





(Chung et al., 2024)

Assessment validity in the age of AI

Validity = trustworthy link between student performance and genuine capability.

AI threatens validity when students can produce ‘valid-looking’ work without real learning.

Validity must be built into assessment design

ASSESSMENT & EVALUATION IN HIGHER EDUCATION
https://doi.org/10.1080/02602938.2025.2503964

Routledge
Taylor & Francis Group

OPEN ACCESS Check for updates

Talk is cheap: why structural assessment changes are needed for a time of GenAI

Thomas Corbin[a], Phillip Dawson[a] and Danny Liu[b]

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ABSTRACT

Generative AI (GenAI) challenges assessment validity by enabling students to complete tasks without demonstrating genuine capability. In response to this challenge, institutions have developed and implemented various approaches that aim to communicate permissible AI use to students. Familiar examples include the 'traffic light' approach now commonly found within institutional policy. While well-intentioned, these approaches share a common limitation: They focus primarily on communicating rules rather than redesigning assessment mechanics. To clarify why such approaches f
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changes to assessment
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create what we term a
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ment capabilities, creati
this, we argue for a sh
builds validity into ass
impose it through unenforceable rules.

KEYWORDS

Assessment design; academic integrity; artificial intelligence; assessment validity

In a nutshell:

- In a time of GenAI, talk is cheap — only structural change assures learning.
- Real validity must be engineered into assessment design, not legislated by policy.

Six strategies for meaningful assessment

Strategy 1: Focus on process, not just product

- Make students' thinking and learning visible.
- Build in in-class checkpoints, Q&A
- Examples: weekly reflections, project logs, 1-min oral updates

Assessment criteria such as 'Shows insight into own learning and problem-solving process'

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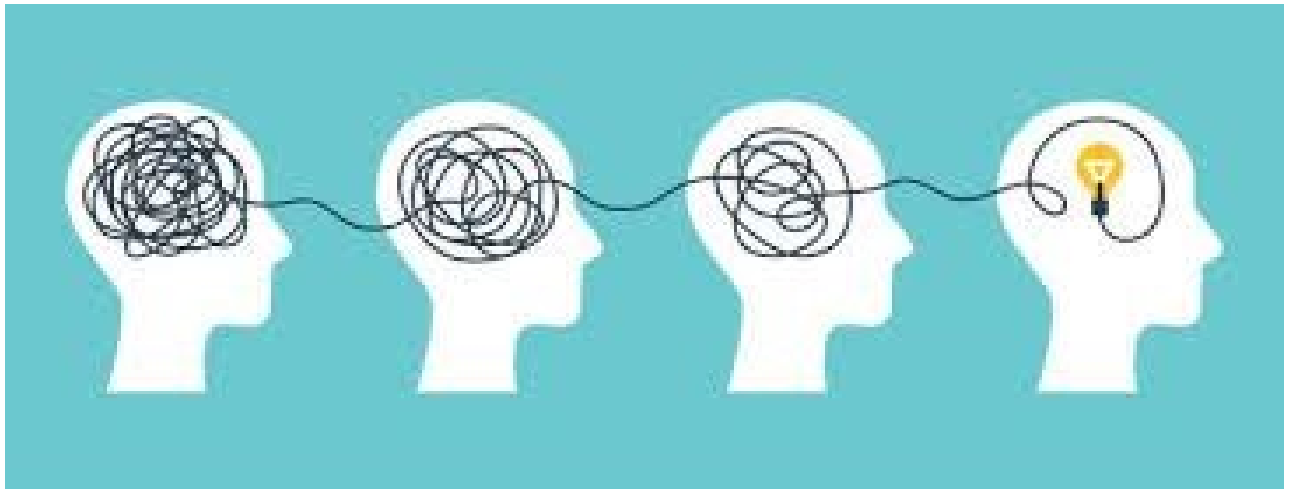


Strategy 2: Provide authentic, real-world tasks

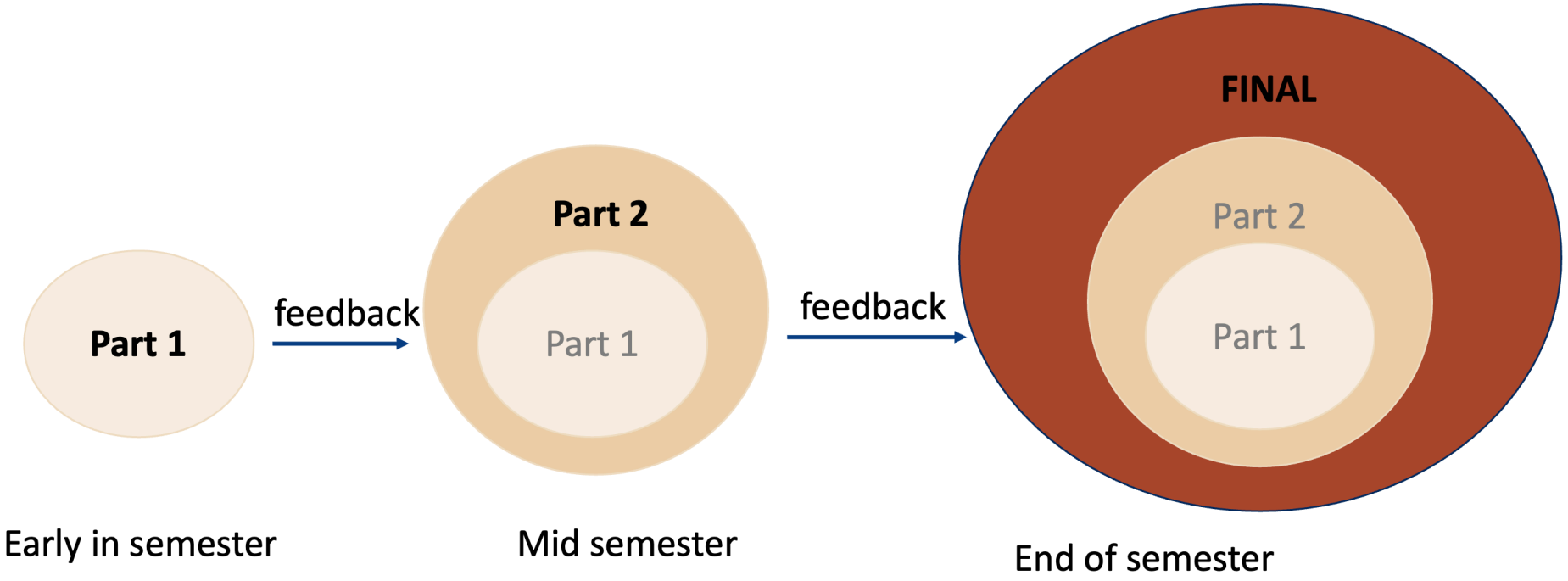
- Connect assessment to professional or community contexts.
- Use tasks that mirror real-world complexity.
- Example: policy brief, client proposal, or community project.

Strategy 3: Design collaborative, team-based tasks

- Encourage collective problem-solving and shared accountability.
- Assess teamwork process, not just group output.
- Example: peer evaluation, self evaluation, group contract or log, or shared reflection.

Strategy 4: Sequence tasks for validity

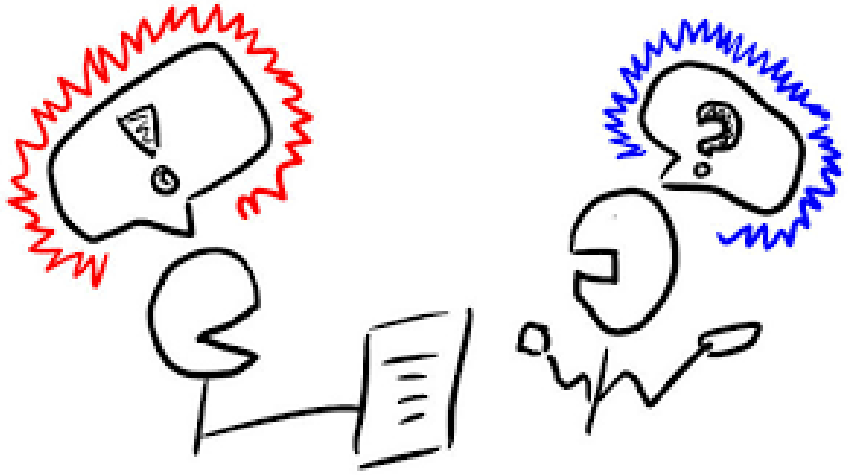
- Connect tasks across a semester or program.
- Build cumulative evidence of learning.
- Example: nested assessment



Strategy 5: Allow students choice and flexibility

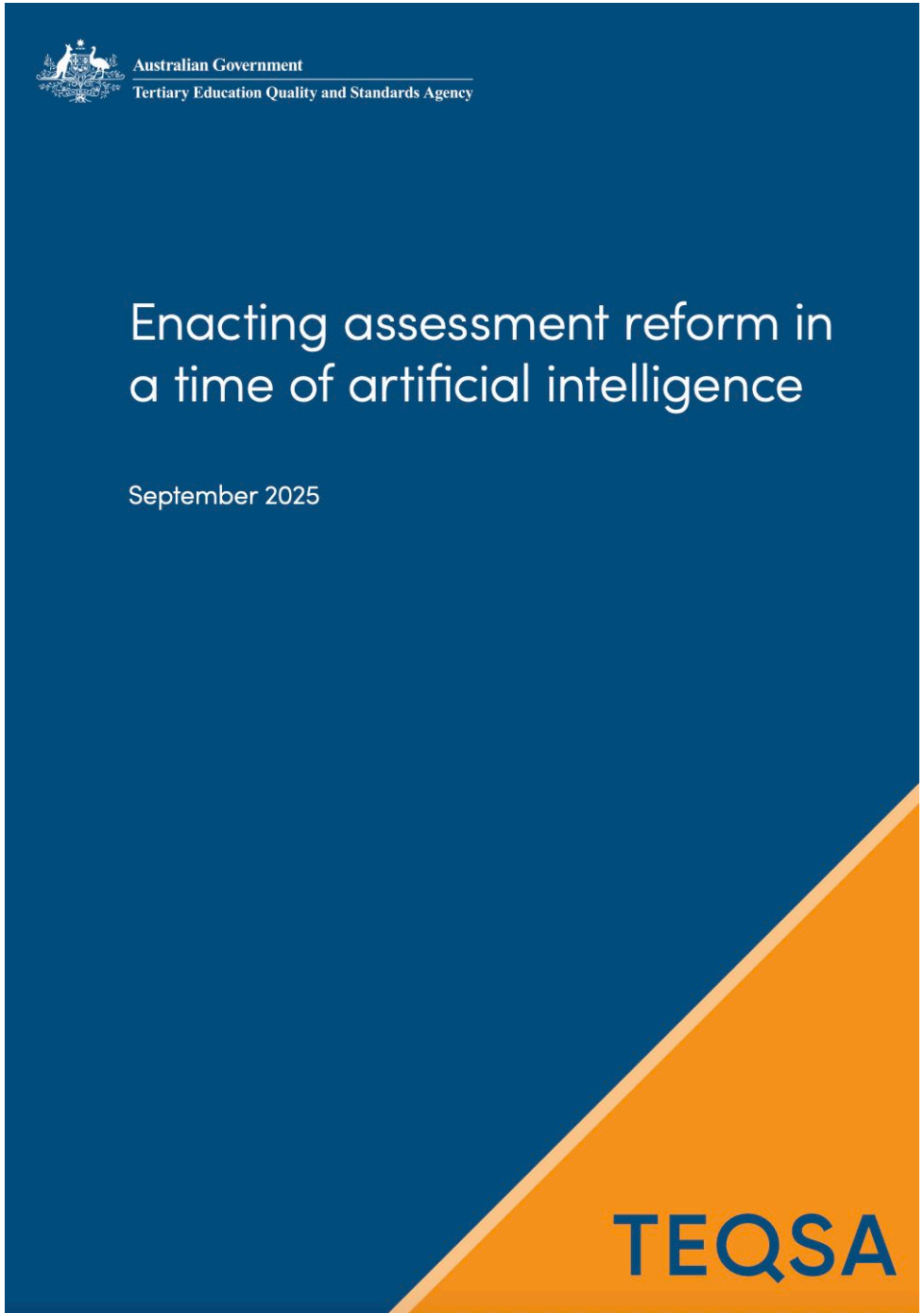
- Give students options in how they demonstrate learning.
- Choice increases autonomy, motivation and inclusion.
- Example: choose between blog, video, or oral presentation

Strategy 6: Involve students in assessing learning



- Shift students from recipients to partners in judgement.
- Use peer and self-assessment to build feedback literacy.
- Example: co-created rubrics, peer review, or self-reflection on criteria.

Students should develop judgment skills – ‘the art of making substantive and comprehensive appraisals in ways similar to those characteristically used by expert assessors’ (Sadler, 2010, p.546).



Three practical pathways for reform:

1. Program-wide reform: Coherent, integrated assessment across a degree program.

2. Unit-level assurance: Each unit includes at least one secure task.

3. Hybrid approach: Combine program and unit-level assurance.

Beyond the unit: Programmatic assessment

Are we over-assessing students? Do all assessment tasks in each unit need to be graded? How many provide meaningful evidence of learning?

Programmatic assessment => integrated system across an entire degree:

- Multiple low-stakes data points feed into periodic high-stakes decisions about progression.
- Focus on feedback, reflection, and growth across time.
- Shared responsibility across teaching teams
- Builds validity and capability evidence through cumulative design.

To conclude…

Meaning assessment in the age of AI:

- **Valid** — assessing what we say and should assess
- **Engaging** — connecting learning to purpose and agency
- **Trustworthy** — building confidence for both students and staff

References

Corbin, T., Dawson, P., & Liu, D. (2025). Talk is cheap: why structural assessment changes are needed for a time of GenAI. *Assessment & Evaluation in Higher Education*, 1–11. https://doi.org/10.1080/02602938.2025.2503964

Chung, Jennifer; Henderson, Michael; Pepperell, Nicole; Slade, Christine; Liang, Yifei (2024). Student perspectives on AI in Higher Education: Student Survey. Monash University. Standard. https://doi.org/10.26180/27915930.v1

Lodge, J. M., Bearman, M., Dawson, P., Gniel, H., Harper, R. Liu, D., McLean, J., Ucnik, L. & Associates (2025). Enacting assessment reform in a time of artificial intelligence. Tertiary Education Quality and Standards Agency, Australian Government

Sadler, D. (2010). Beyond feedback: developing student capability in complex appraisal. *Assessment and Evaluation in Higher Education*, *5* , 535-550.

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Thank you

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