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Enacting assessment reform in a time of artificial intelligence

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TEQSA

Contents

Generative artificial intelligence (gen AI) continues to transform teaching, learning and assessment across Australian higher education. Since ChatGPT's release in November 2022, institutions have progressed from initial responses to structured approaches that address academic integrity concerns and longer-term implications for learning, teaching and assessment design.

The aim of this resource

This resource offers guidance on implementing assessment reform strategies while acknowledging diverse sector contexts. Where *Assessment Reform for the Age of Artificial Intelligence* was designed as a compass, this resource works towards a map by capturing different institutional paths and providing a shared understanding of their implications for institutions, students, staff and the sector. As outlined below, it focuses on assurance of learning, in line with the requirements of the *Higher Education Standards Framework (Threshold Standards) 2021*, but with full recognition of the equal imperative to promote assessment that equips students for a world where gen AI is increasingly ubiquitous.

This resource assists institutions, learning and teaching leaders, academics and professional staff in navigating 3 main approaches that have emerged:

- taking a program-wide approach to assessment reform (program here referring to 'course of study' as per the Threshold Standards)
- assuring learning in every unit/subject
- implementing a combination of these approaches.

Building on TEQSA's work to date and the institutional action plans submitted by all Australian higher education providers in July 2024, this resource brings together principles and practice to outline the rationales, advantages and disadvantages of each approach.

Principles and propositions revisited

The principles from *Assessment Reform for the Age of Artificial Intelligence* remain central to addressing gen AI risks for the assurance of learning. Building on the foundation of Assessment 2020 (Boud and Associates, 2010), that assessment acts as a powerful intervention in student learning, the 2 key guiding principles are:

- Assessment and learning experiences should equip students to participate ethically, critically and actively in a society where gen AI is ubiquitous.
- Forming trustworthy judgements about student learning requires multiple, inclusive and contextualised approaches to assessment.

These principles expand into 5 propositions that assessment should emphasise:

- appropriate, authentic engagement with gen AI
- a systemic approach to program assessment aligned with disciplines/qualifications
- the process of learning
- opportunities for students to work appropriately with each other and gen AI
- security at meaningful points across a program to inform decisions about progression and completion.

The ongoing need for change

More than 18 months after *Assessment Reform for the Age of Artificial Intelligence* was first published, the need for evidence-informed assessment reform remains urgent. Many institutions continue to grapple with implementing sustainable reform that maintains qualification integrity while embracing evolving technologies.

Many students are becoming increasingly sophisticated in gen AI tool use, while workplaces integrate these technologies across disciplines. This situation creates a critical imperative for institutions to reconceptualise assessment, reflecting authentic professional practices that may legitimately incorporate gen AI where appropriate.

Under many traditional assessment practices, the inappropriate use of gen AI compromises the assurance of and challenges compliance with Threshold Standard 1.4.4, which requires the demonstration of specified learning outcomes. Since detecting gen AI use with certainty in assessments is, at this point, all but impossible, we need alternative approaches to complement academic integrity processes. These approaches must either:

- permit gen AI use within defined parameters (recognising that allowing any gen AI use effectively permits its use for entire tasks in most instances)
- design assessments where gen AI use is irrelevant to the demonstration of learning outcomes
- restrict unauthorised gen AI use through direct supervision of learning and/or performance.

While gen AI use in education raises many important issues and has created numerous wicked problems, this resource focuses specifically on the structural changes needed to assure learning (as per Corbin et al., 2025) and compliance with Threshold Standard 1.4.4.

The first principle, "Assessment and learning experiences should equip students to participate ethically, critically, and actively in a society where gen AI is ubiquitous", is vitally important and something that institutions must continue to consider carefully. This resource emphasises seeking evidence of learning in alignment with the second principle.

Rather than investing primarily in detection mechanisms, institutions need to emphasise the redesign of assessment to capture authentic demonstrations of student capability and comprehension.

The 3 pathways

Given the complexity of reforming assessment, institutions are pursuing various strategies to address academic integrity concerns while maintaining the quality and validity of their assessments. As mentioned, there are 3 primary approaches to assessment reform that institutions have taken:

Pathway 1: Assuring learning across the whole degree program

This approach involves the comprehensive redesign of assessment across programs to create coherent, integrated assessment regimes that capture valid evidence of achieving learning outcomes.

Pathway 2: Assuring learning by unit/subject

This approach incorporates at least some assurance of learning within each unit/subject to provide confidence that one or more assessment tasks are completed without unauthorised assistance.

Pathway 3: Assurance of learning occurs across degree structures, but some assurance remains within units only

This hybrid strategy employs elements of both program-wide reform and assurance of learning at a unit/subject level to create balanced assessment regimes.

Each approach presents distinct advantages, challenges and resource implications. The subsequent sections of this resource analyse these approaches in detail, providing guidance on implementation considerations and strategies for addressing the challenges within each approach.

Pathway 1: Assuring learning across the whole degree program

Program-level assessment reform represents an ambitious but achievable approach to addressing the challenges and opportunities posed by gen AI, directly aligning with the principles outlined in *Assessment Reform for the Age of Artificial Intelligence*. This pathway embodies the document's second proposition, emphasising "a systemic approach to program assessment aligned with disciplines/qualifications".

What is program-level assessment reform?

Program-level assessment reform emphasises assessment as a connected system spanning an entire degree program rather than a collection of discrete tasks within individual units/subjects. It involves designing assessment activities that collectively build toward program-level learning outcomes, with intentional progression in complexity and integration across the curriculum. This approach creates a holistic view of student development and achievement that draws on multiple points of evidence gathered throughout the developmental process students undergo during a degree program.

Key characteristics of program-wide assessment include:

Coherent design

Assessment activities are intentionally designed as an integrated system aligned with program learning outcomes rather than as isolated unit/subject-level tasks.

Developmental progression

More readily allows for assessments to build in complexity and sophistication as students progress through their program, with clear scaffolding of knowledge and skills development.

Multiple secure assessment points

Student achievement of program learning outcomes is evaluated through multiple, supervised assessments strategically deployed throughout the program that assure students' learning over time against program-level learning outcomes.

Shared responsibility

Assessment design and evaluation become a collective responsibility of teaching teams across the program, rather than the domain of individual unit/subject coordinators.

Strengths	Challenges
Focus on student development over time: • Emphasises developmental processes through aligned assessment regimes rather than isolated products. • Provides more assurance of learning by creating meaningful connections between assessments across the program. **Evidence-driven assessment system:** • Systematic collection and analysis of student assessment data allows for integrating formative and summative assessment. • Creates a learning-centred approach that supports both individual progression and program improvement (exemplars provided by the 'programmatic assessment' approach that started in medicine). **Strategic alignment:** • Simpler alignment with professional accreditation requirements, focusing on graduate capabilities. • Enables more effective resource allocation and balanced assessment methods across the program. **Reduced workload with fewer secure moments of assessment required:** • In transitioning to this approach, many existing secure points of assessment may be found unnecessary and resources can be redeployed.	**Implementation complexity:** • May represent a significant paradigm shift with potentially high transition costs. • Ongoing need for substantial coordination across teaching teams and programs, which can be resource intensive. **Institutional challenges:** • May face resistance from academics concerned about unit-level autonomy and academic freedom. • May create vulnerability due to concentrated responsibilities and generate change management difficulties when perceived as imposed. **Reduced flexibility:** • Highly integrated assessment can limit students' ability to customise learning pathways or transfer between programs. • Potentially creates confusion if teaching and assessment become disconnected. **Suits strongly coherent programs better than flexible programs:** • There are limited successful examples in complex degree structures, whereas professional degree programs have a natural fit for this type of approach.

Program-level assessment reform represents the most comprehensive and aligned response to the challenges and opportunities posed by gen AI. By reconceptualising assessment as a program-level system rather than a collection of isolated tasks, it creates multiple, interconnected, secure points of evidence that collectively provide robust assurance of student learning.

Successful implementation is likely to require substantial institutional commitment and resourcing, including executive sponsorship, aligned policies, technological infrastructure, extensive professional development and systems to support curriculum design. In many cases, the transition requires significant upfront investment and carefully managed change processes to overcome resistance and ensure quality implementation. As there are limited examples with complex or flexible degree structures, later adopters may have the opportunity to learn lessons from earlier ones.

For institutions, faculties or departments that can adopt this approach, program-wide assessment offers the potential for an assessment that, in the longer term, is simultaneously more:

- valid
- supportive of student learning
- efficient in resource utilisation
- aligned with professional practice requirements.

It represents not just a response to concerns about academic integrity, but a fundamental enhancement of educational quality, aligned with the emphasis in the Threshold Standards on assuring learning outcomes at the course level.

Pathway 2: Assuring learning by unit/subject

Pathway 2 represents an approach where institutions assure learning within each unit or subject. This approach provides immediate assurance that learning outcomes are assessed in every unit/subject in a manner that allows valid insight into student learning, addressing concerns about academic integrity in a direct and tangible way.

What is the assurance of learning at the unit/subject level approach?

The assurance of learning at the unit/subject level approach focuses on incorporating at least one secure assessment task in every unit or subject across a program. These secure tasks are designed to provide evidence that students can independently demonstrate the key learning outcomes for that unit/subject to the required standard, without unauthorised assistance from gen AI or other sources.

Key characteristics of assurance at the unit/subject level include:

Unit/subject-level implementation

Every unit/subject coordinator is responsible for designing and implementing at least one secure assessment task within their specific unit.

Straightforward identity verification

Secure assessment tasks must include mechanisms, generally simple to implement, that verify the person completing the assessment is the enrolled student.

Controlled conditions

Assessments that restrict gen AI or other assistance can be conducted under conditions that effectively enforce these restrictions.

Proportion of unit/subject grade

It is not possible to pass the unit/subject without having satisfactorily completed the secure task(s), effectively making the secure task a hurdle requirement.

Varied formats

Secure assessment can include oral presentations, in-class tasks, supervised practical demonstrations or a number of other formats.

Strengths	Challenges
Implementation efficiency: • Can be implemented quickly within existing structures, with familiar academic frameworks making it more acceptable to staff. • Provides immediate evidence of assurance of learning. **Institutional flexibility:** • Unit coordinators retain autonomy in designing assessment appropriate to their disciplinary context. • Allows individual units to adapt quickly to emerging technologies or integrity threats without program-wide coordination. **External accountability:** • Provides clearly visible assurance of learning that can be readily demonstrated to accreditors, employers and other stakeholders. • Supports micro-credential frameworks and recognition of prior learning processes. • Supports the use of units across different and flexible programs.	**Security vulnerability:** • Relies on the security of dozens of individual tasks, each contributing equally. Without alignment, the risk to the assurance of learning across the program persists, which may result in failure to meet the Threshold Standards. • Requires every unit/subject coordinator to have the capability to secure their assessments, placing significant reliance on program design to assure learning across the degree. • Can be a challenge to assure learning at the program level in flexible degrees using this approach. **Limited holistic development:** • May miss opportunities to develop integrated capabilities that span multiple units and are central to program-level outcomes. • May create misalignment with professional practice where tools like gen AI are increasingly used legitimately. **Workload and resource intensiveness:** • Managing secure assessment across numerous units may create significant administrative overhead for scheduling, supervision and documentation. • Presents challenges in equipping students to use gen AI appropriately. • There will likely need to be substantial development programs in place to assist coordinators with secure assessment design and delivery.

This approach aligns with traditional academic structures and preserves unit/subject-level autonomy, potentially facing less resistance than approaches requiring extensive whole-of-program coordination. It also provides clear evidence of integrity measures to stakeholders concerned about qualification validity at the level of individual tasks.

Assuring learning at the unit/subject level provides:

- a direct and visible response to academic integrity concerns arising from gen AI
- secure assessment points within each unit
- immediate assurance that students can independently demonstrate key learning outcomes.

Successful implementation requires investment in assessment design expertise, infrastructure and quality assurance processes. Institutions must carefully manage the risk of over-relying on examination-based formats that may limit the assessment of complex capabilities and create an overly granular learning experience for students. The assurance of program learning outcomes remains dependent on the overall structure of the program; securing every unit will not, in and of itself, assure program learning outcomes if a degree program is poorly aligned.

For institutions that prioritise immediate integrity assurance or face particular constraints in implementing program-level reform, assuring learning at the unit/subject level can offer a practical pathway and serve as an interim measure while developing more comprehensive assessment reform strategies that address both integrity concerns and educational quality enhancement.

Pathway 3: Assurance of learning occurs across degree structures, but some assurance remains within units only

Pathway 3 represents a hybrid approach that combines elements of both program-wide assessment reform and assurance of learning at the unit/subject level. In this model, some parts of the degree program are designed with a systemic, integrated approach to assessment, while other parts retain unit/subject-level secure assessment tasks. This approach aims towards the comprehensive integrity of program-wide assessment with the immediate assurance provided by including secure tasks within individual units/subjects.

What is the combined approach?

The combined approach creates a strategic blend of assurance of learning operating at different levels within a program. Rather than securing every individual unit/subject or redesigning the entire program, this approach identifies critical groupings of units/subjects where coordinated assessment provides the most valuable evidence of learning progression toward program outcomes.

Key characteristics of the combined approach can include:

Strategic unit/subject groupings

Units/subjects are strategically grouped (such as by major, year level or core knowledge areas) for coordinated assessment design.

Progression evidence focus

Assessment is designed to assure evidence of progression toward program learning outcomes at key junctures in the program.

Selective integration

Assessment tasks are integrated across selected units/subjects where connections are most meaningful for demonstrating achievement of program outcomes.

Distributed responsibility

Responsibility for the assurance of learning is shared between program-level coordination and unit/subject-level implementation.

Strengths	Challenges
Strategic implementation: • Allows institutions to implement program-wide assessment principles in manageable stages. • Enables risk-based prioritisation and strategic resource allocation in critical program components rather than uniform distribution across all units. **Program adaptability:** • Well-suited to large, complex degree programs with multiple specialisations. • Allows tailored responses to disciplinary variations in assessment traditions and integrity challenges while respecting disciplinary distinctiveness. **Reform pathway:** • Enables simultaneous work on both program-level assessment design and unit-level assurance of learning, and engages different stakeholders according to their interests. • Provides a structured transition pathway toward comprehensive reform.	**Strategic management challenges:** • Without careful planning, critical program outcomes may remain inadequately assured. • Potential for inefficient resource allocation if the rationale for different treatment of program components is not strategically sound and sustainable. **Consistency and communication issues:** • Students may experience significant variation in assessment approaches across their program, creating potential confusion about expectations. • More difficult to explain the varied approach to stakeholders than communicating a single strategy. **Professional development requirements:** • Staff need to develop capabilities related to both program-level assessment design and unit-level assurance of learning. • Potential to dilute the professional learning focus or create unmanageable professional development requirements.

* Given that elements of pathways 1 and 2 are relevant here, institutions following pathway 3 should also be mindful of the strengths and challenges of both pathways 1 and 2.

The combined approach of assuring learning within groups of units/subjects within a program context offers a flexible, strategic response to the challenges posed by gen AI. By selectively implementing program-wide assessment principles in some areas while maintaining unit/subject-level assurance of learning in others, institutions can balance immediate integrity assurance with longer-term educational enhancement.

This approach is particularly valuable for complex programs with multiple specialisations or as a transitional strategy for institutions moving toward more comprehensive program-wide assessment. It allows resources to be focused where they provide the greatest benefit while respecting disciplinary variations in assessment traditions and integrity challenges.

Successful implementation requires:

- robust strategic decision-making frameworks
- clear documentation of rationales
- strong coordination across different program components.

Without these elements, there is a risk of creating inconsistent student experiences and/or gaps in assurance of learning across programs.

Working simultaneously from both program and unit/subject levels engages different stakeholders according to their interests and capabilities, potentially accelerating overall assessment enhancement.

When implemented thoughtfully, with explicit attention to the assurance of learning at the program level and careful resource allocation, this approach can create assessment regimes that provide both robust assurance of learning and meaningful learning experiences.

Ongoing challenges across pathways

A critical consideration across all pathways is how learning can be assured across modes of assessment. All 3 pathways depend on having secure tasks that can assure that learning outcomes have been achieved.

The traditional division between synchronous (time-bound, often supervised) and asynchronous (flexible timing, often unsupervised) assessment is being reconsidered in light of gen AI capabilities. Furthermore, the viability, integrity and validity of assessment activities conducted in digital environments remain significant concerns.

Ongoing developments in gen AI, not limited to using this technology to generate 'deepfakes', require constant monitoring. The ability of any task submitted asynchronously and/or undertaken digitally to assure that learning has occurred now needs to be rigorously scrutinised, given the capabilities of gen AI tools. Degree programs dependent on fully online or asynchronous assessment should also be carefully considered, given the rapid evolution of gen AI capabilities. The focus in these, and other modes of assessment of learning, should remain on building high-quality evidence that can show when students have met the outcomes.

Thus, all pathways come with a warning that it may be all too easy to revert to inequitable assessment formats that only focus on assuring learning. Seeking ease and familiarity, individuals and teams may opt for familiar, secure assessment formats such as invigilated time-limited tests and exams. This may reduce assessment variety and authenticity, thereby diminishing the value of assessment in promoting learning, as well as exacerbating existing inequities.

Critical questions for institutions

As institutions implement their chosen assessment strategies, critical questions can guide ongoing reflection and development:

1. How do unit/subject-level assessments contribute to program-level outcomes?

- Even in unit/subject-focused approaches, how are connections between assessments made visible to students and staff?
- What mechanisms ensure that unit-level assessments collectively provide evidence that each student has met program-level outcomes (as required by the Threshold Standards)?
- How is assessment design information shared across teaching teams to create coherent and reasonable student experiences?
- What governance processes support review of assessment at both unit/subject and program levels?

2. How does your approach balance immediate integrity concerns with longer-term educational goals?

- Does your approach address immediate risks while building toward more comprehensive reform?
- How does your strategy balance compliance requirements with educational enhancement through assessment?
- What measures indicate both assurance of learning and promotion of learning through assessment?
- How does your approach prepare students for future professional contexts where gen AI will be increasingly integrated (as appropriate)?

3. How do assessment practices respond to different disciplinary contexts?

- How does your approach accommodate different disciplinary relationships with gen AI tools?
- What flexibility exists for disciplines to assure learning in a manner appropriate to their contexts?
- How are discipline-specific professional standards reflected in assessment design?
- What cross-disciplinary coordination ensures consistent expectations for students studying across fields?

4. How are support services evolving to enable new assessment approaches?

- Are academic development resources aligned with your assessment strategy?
- Are you inducting both staff and students into your community and clearly articulating the assessment approaches and the reciprocal responsibilities both students and the institution have?
- Are student support services ready to help students navigate new assessment expectations?
- Are technical infrastructure and digital learning teams equipped to support your approach?
- Have library and information services adapted to changing research and referencing practices in the context of gen AI?

5. How do you know your approach is genuinely assuring that learning outcomes are being achieved?

- What validation processes are used to verify that supposedly secure assessments are not being routinely compromised?
- How are potential vulnerabilities in secure assessment tasks systematically identified and addressed?
- How do review processes support the ongoing maintenance of the assurance of learning?
- How do you balance security measures with maintaining authentic and inclusive assessment experiences?

6. What evidence informs ongoing development of your assessment strategy?

- What data are you collecting to evaluate the effectiveness of your approach?
- How are student perspectives integrated into assessment review processes?
- What indicators would signal the need for strategic adjustment?
- How is external evidence from research and practice informing your ongoing development?

These questions provide a framework for ongoing reflection as institutions implement and refine their approaches to assessment in response to the challenges and opportunities presented by gen AI.

Moving forward

As Australian higher education continues to respond to the challenges posed by gen AI, the sector has progressed from initial reactions to more structured, strategic approaches. The 3 pathways discussed in this resource represent dominant strategies that have emerged, each with distinct implications, challenges and opportunities. Each of the pathways is not entirely discrete, nor are they the only possibilities. Over longer timeframes, approaches that build on effective pedagogy and/or deliberately build gen AI deeply into the assessment process are possible and perhaps desirable.

The journey of assessment reform is ongoing, with institutions at different stages of implementation. What remains constant is the dual purpose of assessment: to support meaningful learning and to provide assurance that learning outcomes have been achieved. In a gen AI-enabled world, fulfilling this dual purpose requires thoughtful design, strategic decision-making and ongoing adaptation.

The continued collaboration across the sector, sharing of emerging practices and evidence-informed development of assessment approaches will be essential as institutions navigate this complex and rapidly evolving challenge. Together, these efforts will ensure that Australian higher education maintains its commitment to quality, integrity and educational excellence in the age of artificial intelligence.

References

Boud, D. and Associates (2010). *Assessment 2020: Seven propositions for assessment reform in higher education*. Australian Learning and Teaching Council.

Corbin, T., Dawson, P., & Liu, D. (2025). Talk is cheap: why structural assessment changes are needed for a time of Gen AI. *Assessment & Evaluation in Higher Education*, (online first version).

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