UNIVERSITY OF TORONTO MISSISSAUGA

ROBERT GILLESPIE ACADEMIC SKILLS CENTRE

Assessment Design Strategies with Generative AI in Mind

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Land Acknowledgement

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit River. Today, this meeting place is still the home to many Indigenous People from across Turtle Island, and we are grateful to have the opportunity to work on this land.

- We also acknowledge that the use of Gen AI carries environmental and social impacts that affect the land upon which we live, work, and learn
- We honor and respect your approach to integrating - or choosing not to integrate - AI in your assessments

Resource for Reflection: Understanding GenAI Through Indigenous Ways of Knowing
Dr. Gregory Sutherland, Simon Fraser University

Access Check

We encourage you to check, identify, and question your learning environment for any of the following and welcome comments if there are elements that we can support to reduce barriers.

- Technology
- Space
- Resources
- Pace

Session Objectives

Instructors will be invited to:

1. Reflect on generative AI capabilities and identify impacts on their assignments and relationships with students
2. Explore emerging assessment frameworks and approaches that consider AI integration and promote open communication
3. Discuss examples for considering generative AI into assessment design and rubric criteria

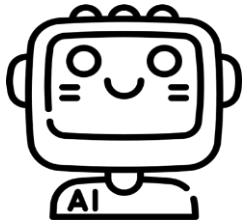
Implications of Gen AI on Educational Assessment

Instructors assign assessments

Students complete assessments

Conclusions made about student achievement and/or readiness

Implications of Gen AI on Educational Assessment



Instructors assign assessments

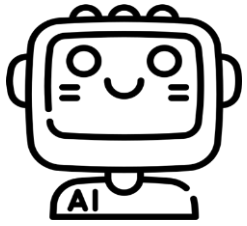
Students complete assessments

Conclusions made about student achievement and/or readiness

assessment validity

Implications of Gen AI on Educational Assessment

Rethinking assessment conditions: Can the learning outcomes be met?



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Conclusions made about student achievement and/or readiness

assessment validity

Four Critical Constraints

As we navigate AI in assessment, four realities emerge:

1. When we design primarily to "beat" or "block" AI, or prioritize convenience over pedagogy, we risk undermining authentic learning
2. Nearly all conventional assessment formats can now be completed by AI tools (agentic AI can now complete complex workflows autonomously)
3. There is no fair, accurate, or dependable method to detect AI-generated content (Elkhatat et al., 2023; Liang et al., 2023; Saha and Feizi, 2025)
4. Our obligation remains ensuring students genuinely develop the knowledge and skills they need to succeed

Resource: AI Playbook for Teaching and Learning Leaders: A Community Guide

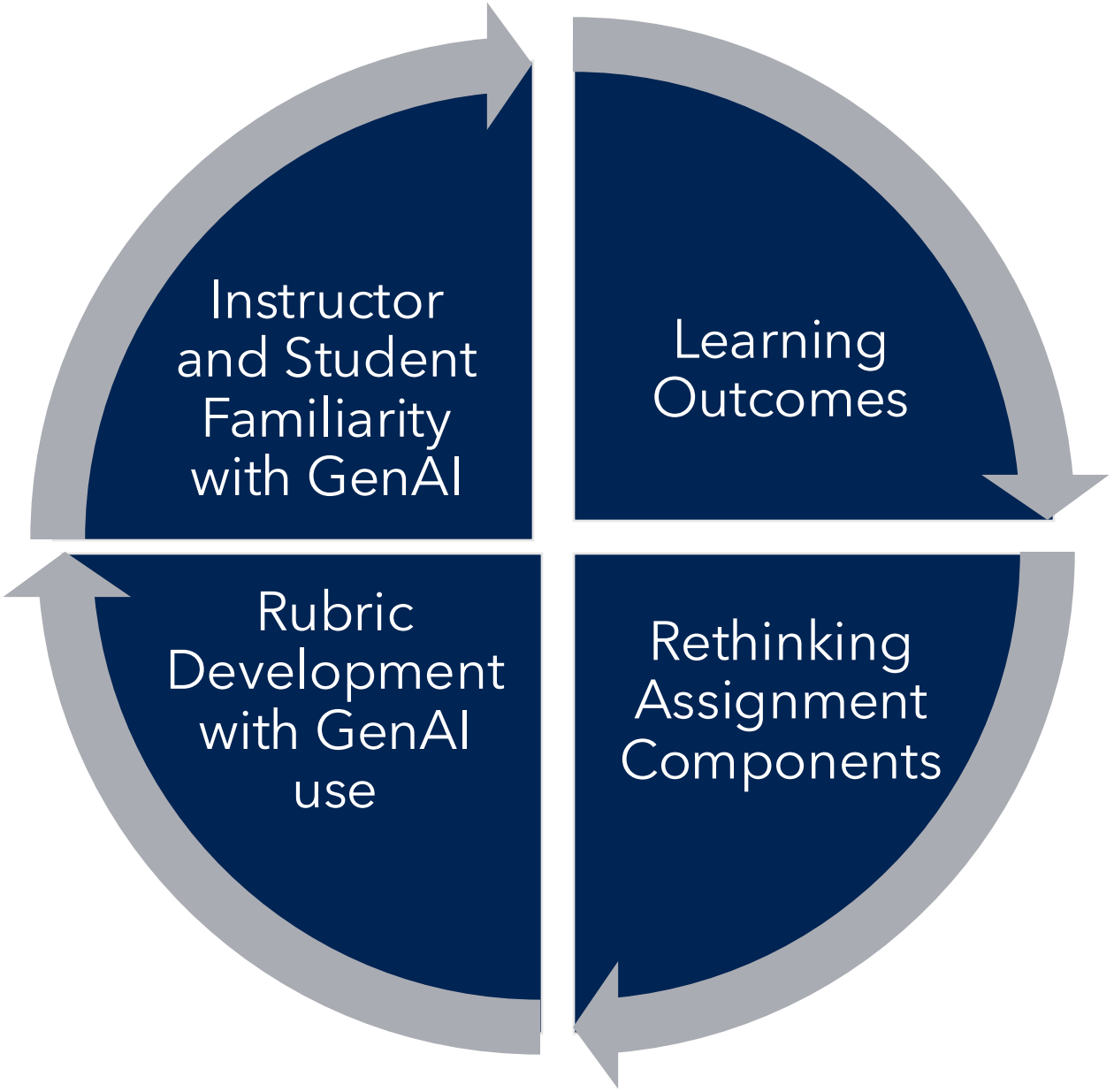
Share Your Thoughts

Raise your hand or write in the chat:

- What's one assessment in your course that you're most concerned about regarding generative AI use? Why?

Co-reflecting on generative AI use in your classroom: Where to begin

How familiar are you and your students with the capabilities of gen AI tools?



What do you want students to learn from your assignments? How do you want/not want gen AI to show up in your classroom?

What knowledge and/or skills are you assessing in your rubric criteria? Are there additional criteria needed if gen AI is incorporated?

If incorporating or restricting gen AI use, in what ways will your assessment design change or stay the same?

Structural and Discursive Assessment Changes: A Balanced Approach

With AI, how do we ensure submitted work reflects student achievement?

Two approaches (Corbin et al., 2025):

1. **Structural changes:** Redesign assessment tasks → builds validity through design
2. **Discursive changes:** Update policies and communication → requires voluntary compliance

What remains true:

Neither approach alone ensures validity - we need both

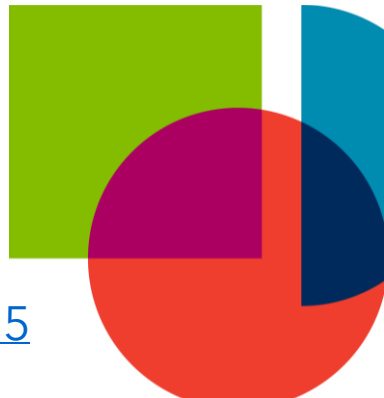
Structural Changes:
AI-Resistant and AI-Integrated Examples

AI-Limited Changes

- Oral & visual demonstrations (Concept mapping)
- Collaborative projects
- Classroom-specific prompts (U Carleton examples)
- Multi-stage assignments
- Reflective practice integration (Assessment Process Template)

AI-Integrated Changes

- Multi-stage workflows deliverables (see U of T AI-Integrated Lit. Reviews)
- Scaffolded tasks with AI (e.g. Peer & AI Review + Reflection)
- Process-visible AI collaboration
- Critical reflections on Gen AI use and learning



Bowen & Watson, 2024, Holton and Frank, 2025, UBC, 2025

Two-Lane Approach to Assessment

	Secure (Lane 1)	Open (Lane 2)
Assessment security	Secured, in person	‘Open’ / unsecured
Role of GenAI	May or may not be allowed by examiner	As relevant, use of AI scaffolded & supported
Examples	• In person interactive oral assessments • In class tests and exams • Placement, internship, or supervision	• Practice or application • Inquiry or investigation • Production and creation • Discussion

University of Sydney, 2025

Example: Distributed Assessment Portfolio

Purpose: Gather diverse evidence of learning through varied assessments (Open and Secured)

In-class Quiz: Check foundational concepts (secured)

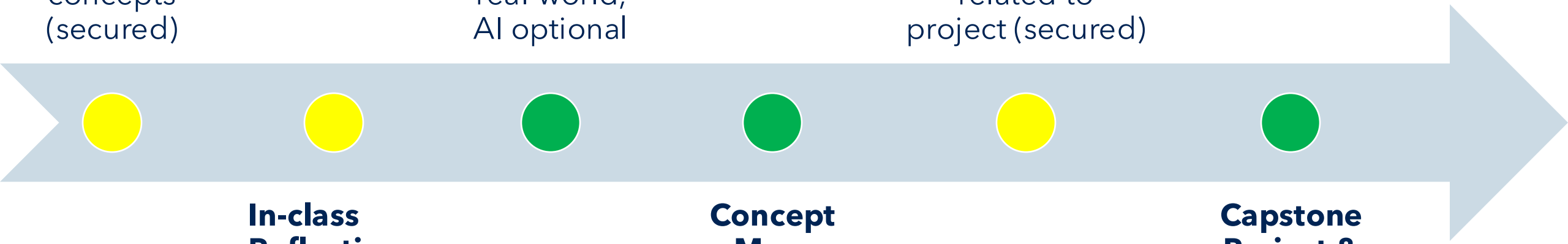
In-class Reflection: Link theory to experience (secured)

Case Study: Apply concepts to real-world, AI optional

Concept Map: Organize ideas using digital tools

Class Debate: Argue perspectives related to project (secured)

Capstone Project & Presentation: Synthesize knowledge



Share Your Thoughts

A distributed approach collects evidence of learning across the term - some tasks are intentionally AI-limited, others allow or integrate AI tools

Raise your hand or write in the chat:

Looking ahead, how might you adapt your current course assessments so that it aligns with a distributed approach?

Example 1 (AI-Integrated)
Before: Annotated Bibliography

Assignment

- Students in a 3rd year psychology course are assigned an annotated bibliography on a topic of their choosing as it relates to memory and cognition.

Learning Outcomes

- Critically read and identify key points of literature to develop a research question
- Effectively synthesize sources to determine its validity and usefulness in relation to research question

Learning Artifact

- Annotated bibliography with references

AI Vulnerability Considerations:

- Limited visibility into student thinking process
- Final product can be generated without authentic engagement

Example 1 (AI-Integrated)
After: Annotated Bibliography

Assignment

- Students in a 3rd year psychology course are assigned an annotated bibliography on a topic of their choosing as it relates to memory and cognition.

Learning Outcomes

- Critically read and identify key points of literature to develop a research question
- effectively synthesize sources to determine its validity and usefulness in relation to research question

Learning Artifact

- Annotated bibliography with references
- Critical reflection on AI use (research question refinement, literature search, evaluating AI output)
- Cover letter

AI Planning, AI Collaboration

- Exploring the literature, critiquing/evaluating AI output
- Refining research question, reflecting on AI use.

Artifact:
Process Documentation & Reflection

Students submit a cover letter alongside their work that:

1. Describes how ideas developed from initial concept to final form
2. Explains turning points and why/how their approach changed
3. If external resources were used, such as AI or external readings, describe how and why, with documentation

Benefits of the practice:

- Creates evidence trail of student thinking and process
- Encourages metacognition and ownership

Adapted from: Sandoval-Lee, 2025

Before: Annotated Bibliography Rubric

	Rubric Criteria	Excellent (85-100%)	Good (77-84%)	Adequate (70-77%)	Inadequate (below 70%)
1	Quality of Sources Selected	Sources are highly accurate, reliable and relevant to the topic	Sources are overall accurate, reliable and relevant to the topic	Sources are overall reliable but could be more accurate and/or relevant to the topic	Sources are not reliable, accurate, and/or relevant to the topic
2	Clarity of Research Question	Introduction provides a very clear explanation and rationale for the research question	Introduction provides a fairly clear explanation and rationale for the research question	Introduction explains the research question, but the rationale could be clearer	Introduction doesn't explain the research question clearly
3	Critical Thinking	Student's stance and critical evaluation about the content of the sources is very well developed and clear throughout	Student's stance and critical evaluation about the content of the sources is fairly well developed and clear	Some evidence of student's stance and critical evaluation about the content of the sources, but it could be more developed and /or clear	Student's stance and critical evaluation about the content of the sources is either not there or is not developed and is unclear

Adapted from: OISE. (2024). Annotated Bibliography Evaluation Criteria –Grading Rubric.

Annotated Bibliography Rubric Revised:

Rubric Criteria Revised	Excellent (85-100%)	Good (77-84%)	Adequate (70-77%)	Inadequate (below 70%)
Quality of Sources Selected	Sources are highly accurate, reliable and relevant to the topic.	Sources are overall accurate, reliable and relevant to the topic.	Sources are overall reliable but could be more accurate and/or relevant to the topic.	Sources are not reliable, accurate, and/or relevant to the topic.
AI-assisted Source Discovery	***Effectively uses AI tools to identify diverse, high-quality sources. Demonstrates ability to critically evaluate AI-suggested sources for relevance and credibility.***	***Shows competent use of AI for source discovery, with some evaluation of suggested materials.***	***Limited use of AI for finding sources, or overreliance on AI suggestions without adequate evaluation.***	***No evidence of AI use in source discovery, or uncritical acceptance of all AI-suggested sources.***

1

Annotated Bibliography Rubric Revised:

2

Rubric Criteria Revised	Excellent (85-100%)	Good (77-84%)	Adequate (70-77%)	Inadequate (below 70%)
Clarity of Research Question	Introduction provides a very clear explanation and rationale for the research question.	Introduction provides a fairly clear explanation and rationale for the research question.	Introduction explains the research question, but the rationale could be clearer.	Introduction doesn't explain the research question clearly.
Refinement of Research Question with AI	***Combines AI output with course relevant insights to formulate a unique, well-defined research question. Demonstrates ability to critically assess and build upon AI suggestions.***	***Combines AI output with original thinking to develop a clear research question, showing some critical evaluation.***	***Research question shows minimal refinement beyond AI suggestions, lacking depth of personal analysis.***	***Research question directly copied from AI output without significant modification or critical thought.***

Annotated Bibliography Rubric Revised:

Rubric Criteria Revised	Excellent (85-100%)	Good (77-84%)	Adequate (70-77%)	Inadequate (below 70%)
Critical Thinking	Student's stance and critical evaluation about the content of the sources is very well developed and clear throughout.	Student's stance and critical evaluation about the content of the sources is fairly well developed and clear.	Some evidence of student's stance and critical evaluation about the content of the sources, but it could be more developed and /or clear.	Student's stance and critical evaluation about the content of the sources is either not there or is not developed and is unclear.
Reflection on AI Use	***Provides insightful reflection on how AI tools influenced the research process, including benefits and limitations encountered.***	**Offers clear reflection on AI tool use, with some analysis of its impact on the research process.**	**Minimal reflection on AI use, lacking depth or critical evaluation.**	**No reflection on AI use or its impact on the research process.**

Example 2 (AI-Limited)
Before: Reading Annotation

Assignment

- Students annotate a text, identifying arguments, defining concepts, posing questions, and make connections.

Learning Outcomes

- Critical engagement with text content and form.
- Developing analytical and reflective reading skills.

Learning Artifact

- Annotated text

AI Vulnerability Considerations:

- Limited visibility into student thinking process
- Final product can be generated without authentic engagement

Example 2 (AI-Limited)
After: Reading Annotation (S. Trimble, U of T 2025)

Assignment

- Students annotate a text, identifying arguments, defining concepts, posing questions, and make connections.

Learning Outcomes

- In-depth textual and social engagement using Hypothesis.
- Critical engagement with text content and form.
- Develop analytical and reflective reading skills

Learning Artifact

- Dynamic annotated reading with process evidence
- Reference to localized course content and lived experience
- Reflective note on learning and resources used

AI-Limiting Features:

- Individualized critical engagement visible via ongoing annotations
- Metacognitive prompts require authentic personal reflection

Reading Annotation Rubric: Before vs. After

Emerging Criteria	Previous Version	Revised Version
Engagement with Text	Completed annotations and polished comments	Process annotations + ongoing reflections throughout reading
Originality & Integrity	Final artifact without external tool monitoring	Individual voice evident through scaffolded responses and visible drafts
Collaboration	Individual focus	Encouraged peer comments and interaction via Hypothesis platform
Metacognitive Reflection	Self-directed reflection	Guided student reflection on learning process
Transparency of Tools/Support	Implicit process support	Explicit documentation of process and learning reflections

Responding to the Challenge of GenAI

Permission to Diverge

- Consider how course context shapes what is possible
- Different disciplines, class sizes, and learning outcomes require different approaches

Permission to Compromise

Weigh pedagogical goals against workload

Weigh security against authenticity

Weigh current needs against future preparation

Permission to Iterate

- Fixed solutions as obsolete
- Design patterns emerge as "shorthand responses," but require ongoing adaptation

Adapted from: Corbin et al., 2025

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Thank You!

For one-on-one consultations, please feel free to reach out to eddev.utm@utoronto.ca

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Workshop Feedback for "Assessment of Learning Series 2"