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Rethinking Rubrics in the Age of Generative AI

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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 most recently, 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.

Art by Christi Belcourt
https://www.instagram.com/p/Cia4T9euYUu/

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

Agenda

1. What is generative AI?
2. Implications of gen AI on higher education, pedagogy, and assessment
3. A model for rubric re-design: Where to begin
4. The AI assessment scale (Perkins, Furze, Roe,& MacVaugh, 2024).
5. Breakout Room 1: Instructor familiarity with gen AI (7 minutes)
6. Discussion (10 minutes)
7. Break (5 minutes)
8. Rubric revision demo: Rethinking an annotated bibliography with gen AI
9. Breakout room 2: Revise your course rubrics (15 minutes)
10. Discussion (10 minutes)

Session Objectives

By the end of this session, instructors will:

- Explore an emerging assessment framework which considers how generative AI can be integrated into their assessment design

- Reflect on their familiarity with generative AI tools and how this can affect the design of their assignments and their rubrics

- Explore, discuss, and co-create rubric criteria that considers the integration of generative AI in course assignments

What is Generative AI?

- Generative artificial intelligence tools (Gen AI tools) can create/curate content based off of large-language models (LLMs)

- Gen AI tools work by predicting the next word in a sequence

- These tools have been known to hallucinate

Input
(Prompt)

Gen AI Tool
(i.e. MS Copilot)

Output
(written text, audio, images, code, etc.)

Implications of Gen AI on Higher Education, Pedagogy, and Assessment

- Concerns about academic integrity

- Concerns about assessment validity
  - Are assignments still meaningful assessments of student learning?

- Rubrics can be used as a means of communicating expectations for students on how to, and how not to use gen AI

A Model for Rubric Re-Design: Where to Begin

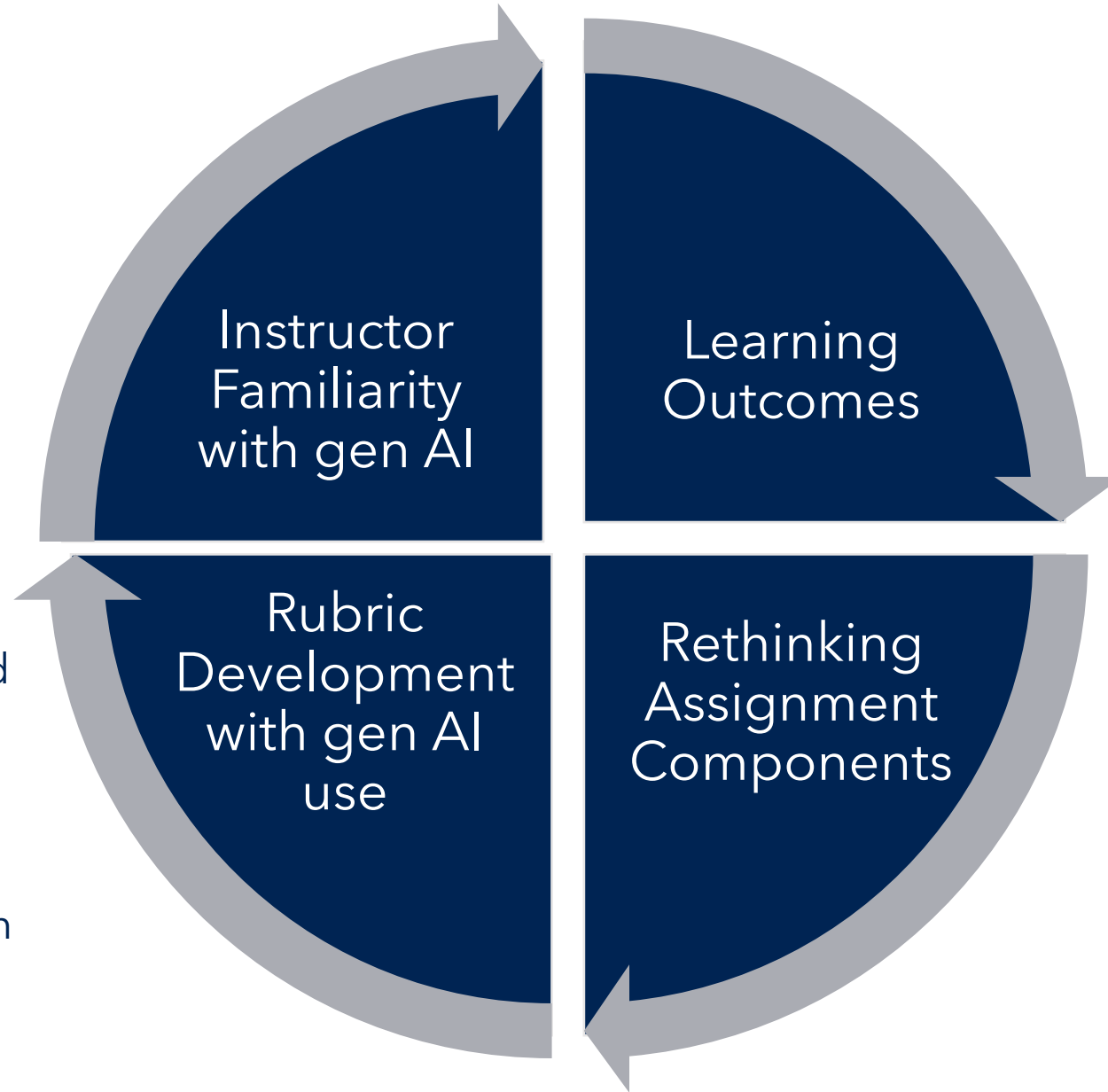How familiar are you with gen AI tools? Have you used them before?

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

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

If incorporating genAI, how will your assignment submission change? What other learning artifacts will students need to submit?

Instructor Familiarity with gen AI

Learning Outcomes

Rubric Development with gen AI use

Rethinking Assignment Components

The AI Assessment Scale (Perkins, Furze, Roe,& MacVaugh, 2024).

1	No AI	The assessment is completed entirely without AI assistance in a controlled environment, ensuring that students rely solely on their existing knowledge, understanding, and skills. **You must not use AI at any point during the assessment. You must demonstrate your core skills and knowledge.**
2	AI Planning	AI may be used for pre-task activities such as brainstorming, outlining and initial research. This level focuses on the effective use of AI for planning, synthesis, and ideation, but assessment should emphasize the ability to develop and refine these ideas independently. **You may use AI for planning, idea development, and research. Your final submission should show how you have developed and refined these ideas.**
3	AI Collaboration	AI may be used to help complete the task, including idea generation, drafting, feedback, and refinement. Students should critically evaluate and modify the AI suggested outputs, demonstrating their understanding. **You may use AI to assist with specific tasks such as drafting text, refining and evaluating your work. You must critically evaluate and modify any AI-generated content you use.**
4	Full AI	AI may be used to complete any elements of the task, with students directing AI to achieve the assessment goals. Assessments at this level may also require engagement with AI to achieve goals and solve problems. **You may use AI extensively throughout your work either as you wish, or as specifically**
5	AI Exploration	AI is used creatively to enhance problem-solving, generate novel insights, or develop innovative solutions to problems. Students and educators co-design assessments to explore unique AI applications within the field of study. **You should use AI creatively to solve the task, potentially co-designing new approaches with your instructor.**

Breakout Room 1: Instructor Familiarity with Gen AI (7 minutes):

1) How familiar are you with the capabilities of generative AI tools?

2) How has it shown up in your classroom? How do you know students are using it? Can your current assignments "survive" it?

3) How would you like it to be used/not used in your classroom?

Breakout Room 1: Instructor Familiarity with Gen AI Discussion

1) How familiar are you with the capabilities of generative AI tools?

2) How has it shown up in your classroom? How do you know students are using it? Can your current assignments "survive" it?

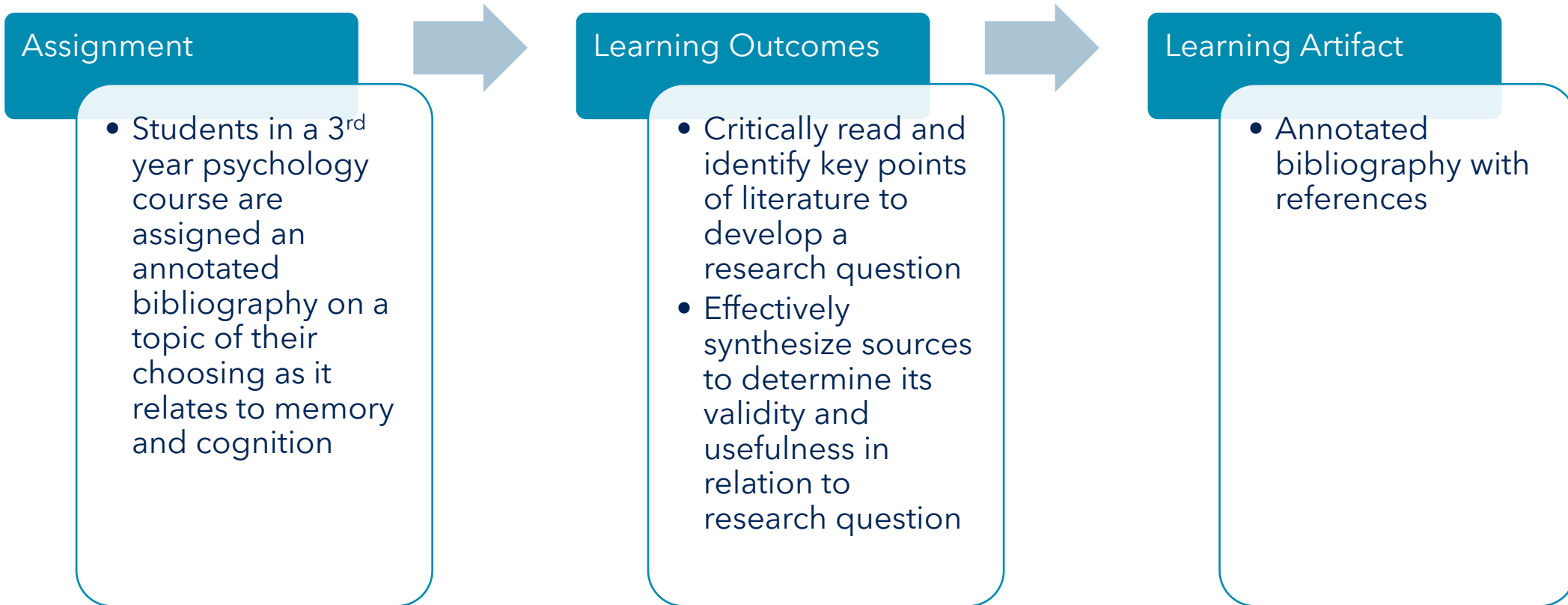3) How would you like it to be used/not used in your classroom?

Please feel free to share in the chat or unmute!

Break (5 min)

Rethinking an 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
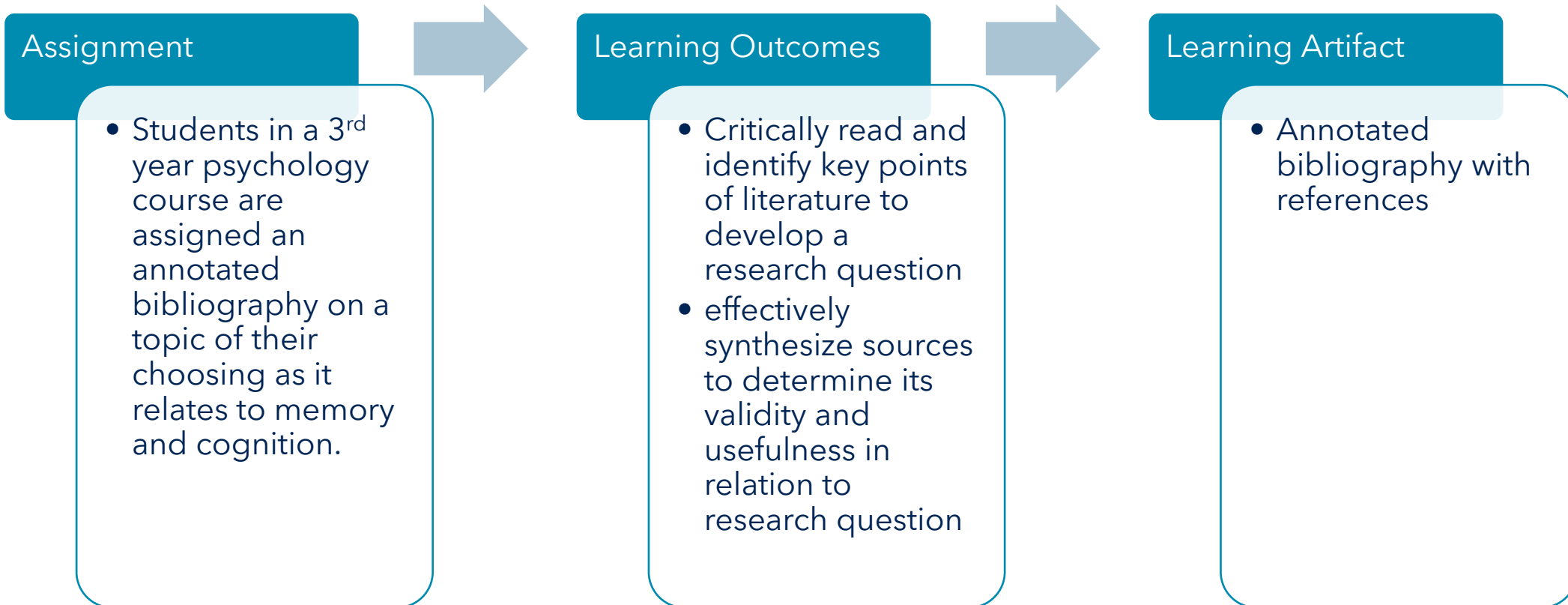
Learning Artifact

- Annotated bibliography with references

Annotated Bibliography Rubric

Rubric Criteria	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
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
Rationale for Source Selection	Introduction provides a clear and explicit rationale for source selection	Introduction provides a fairly clear and explicit rationale for source selection	Introduction provides rationale for source selection, but could be clearer and/or more explicit	Introduction does not provide rationale for source selection or it is not clear
Quality of Summaries	Brief but exhaustive summary of relevant points from the sources, assuming little prior knowledge about the sources on the part of the reader	Good summary of most relevant points from the sources, assuming little prior knowledge about the sources on the part of the reader	Summary of some relevant points from the sources is there, but it could be more to the point.	No summary of relevant points from the sources, or summary is not to the point at all
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.

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AI Planning, AI Collaboration: Exploring the literature, critiquing/evaluating AI output, refining research question, and reflecting on AI use.

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1
2
3

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Annotated Bibliography Rubric Revised:

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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

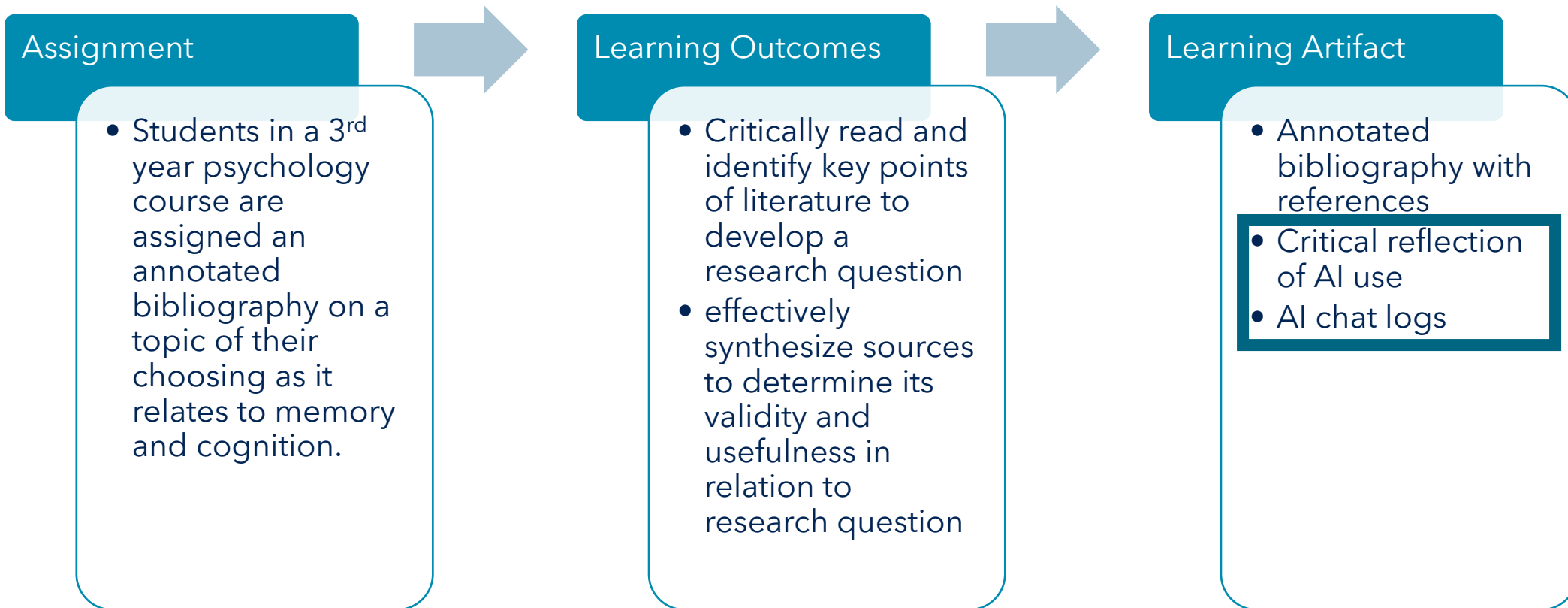| Rubric Criteria Revised	Excellent (85-100%)	Good (77-84%)	Adequate (70-77%)	Inadequate (below 70%)
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Refinement of Research Question with AI	*Combines AI output with course relevant insights to formulate a unique, well-defined research question. Demonstrates 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.*

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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.**

3

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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 of AI use
- AI chat logs

AI Planning, AI Collaboration: exploring the literature, critiquing/evaluating AI output, refining research question, and reflecting on AI use.

Breakout Room 2: Revising your Course Rubrics (15 minutes)

Using your discussion from breakout room 1, and the rubric revision demo, revise your course rubric with the following prompts:

1) Where can gen AI be used and not used in your course? (Use the AI assessment scale to help)

2) What extra learning artifacts may you require from students?

3) Which rubric criteria could be revised with generative AI use, and which are non-negotiable?

Make a note of challenges or road blocks you experience during this discussion with your group.

Breakout Room 2: Revising your Course Rubrics Discussion (10 minutes)

Using your discussion from breakout room 1, and the rubric revision demo, revise your course rubric with the following prompts:

1) Where can gen AI be used and not used in your course? (Use the AI assessment scale to help)

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Thank You!

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