

# Integrating Generative AI into Post-Secondary Teaching Practice

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Project Proposal

**Integrating Generative AI into Post-Secondary Teaching Practice**

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## 1) Introduction

For my capstone project, I am developing a teaching module integrating generative AI (AI) tools into higher education learning experiences to enhance student engagement and elevate awareness and critical thinking when using Generative AI (AI). This project extends my 2024 LinkedIn article, “Generative AI: Ban it or Bring it On? One Professor’s Perspective”, where I argued for moving beyond prohibition toward guided, ethical use that builds students’ AI and information literacies rather than focusing on catching misuse (Quartermain, 2024). Microsoft Copilot is the primary focus of tools as it is the authorized AI tool at Conestoga College.

I am pursuing this topic because Generative AI (AI) is already part of students’ everyday learning ecosystems, and the question for higher education is no longer if we engage with AI, but how we do so ethically and effectively. My recent coursework and teaching experience have exposed both the promise and the pitfalls of AI in curriculum, instruction, and assessment, motivating me to build a practical, research-informed framework that instructors can incorporate into a course that builds capacity and knowledge for students without sacrificing academic integrity or human-centered pedagogy.

Several contemporary analyses and papers underscore the urgency of this work and often argue that AI’s presence on campus is already widespread and that bans are counterproductive. Instead, institutions should rethink assignments and expectations to support better learning outcomes and responsible use of AI tools (Winter, 2025). Other research cautions that promoting AI as a tutor or collaborator misattributes human qualities such as responsibility, reminding us that educators must remain accountable for pedagogy (Flenady & Sparrow, 2025). Horvath (2024) warns that if students rely too heavily on AI, they might skip the mental effort needed to build knowledge. Additional research highlights the need to adapt Bloom’s Taxonomy for AI-assisted learning so that courses emphasize analysis, evaluation, and creation rather than mere recall (Gonsalves, 2024; Workman, 2023).

## 2) Rationale for Choice of Format & Expected Audience

Given the rapid adoption of AI technologies in educational contexts, the topic is timely and relevant. As a professor, I have observed both curiosity and concern among colleagues regarding AI's role in teaching. This project builds on prior Professional Master of Education (PME) coursework, including PME815 on digital literacy, and responds to educators' evolving and growing needs in navigating AI integration.

The chosen format for my project deliverables will be an in-class PowerPoint (PPT) presentation paired with a BOPPS lesson plan for instructors and supporting activity worksheets, which is ideal for classroom teaching settings:

- presentation slide deck (PPT) that incorporates key findings into practical strategies and examples for student learning;
- a BOPPS-aligned lesson plan (Bridge–Objectives–Pre-assessment–Participatory Learning–Post-assessment–Summary) that instructors can reuse or adapt in their courses.
- Student Activity Worksheet Handout to capture data.

These elements allow for a structured, instructional approach that is both visually engaging and practically applicable. The format can be modified for each instructor's use as it incorporates a course material review as the foundation for a critical analysis of AI following the Interests/Question (IQ) engagement model (Kramer, 2022). This format will support knowledge mobilization and ensure instructors can use the content in real-world classroom contexts, providing feedback on course material learning as a secondary outcome. The formats align with current debates, and it treats AI as a tool to be framed and guided, not as a stand-alone teacher addressing concerns about agency and responsibility (Flenady & Sparrow, 2025). At the same time, it reflects the reality that students are already using AI in diverse, often unclear ways, and faculty need concrete prompts, activities, and policy language to engage constructively (HBP, Eds, 2024; Pesovski et. al, 2024; Winter, 2025).

### **Expected Audience**

The primary audience is students. Secondary audiences include instructors, program leads, and teaching & learning centres interested in integrating AI into curriculum, assessment, and feedback cycles. The materials are also relevant for department chairs and curriculum committees who set policy and provide professional learning for faculty.

### **3) Research Methodology**

This project does not involve human subjects but follows a design-evidence-synthesis approach to produce implementable guidance and in-class activities.

#### a) Literature review.

- Analysis of peer-reviewed papers and credible practitioner sources on AI in higher education. This includes critical lenses on AI's pedagogical role, integrity, bias, and student experience (Flenady & Sparrow, 2025; Horvath, 2024; Werhun, 2024; HBP, 2024; Winter, 2025).
- Scan frameworks and position papers (e.g., Bozkurt et al.'s 2024 manifesto) on ethics, human agency, and inclusive practice.
- Synthesize deliverables and incorporate learning into the PPT slide deck (models, templates, sample prompts, policy language) and the BOPPS lesson plan (learning objectives, activities, and assessments) to ensure immediate classroom relevance aligned with Bloom's Taxonomy.

### **4) Evaluation Strategy**

To evaluate the effectiveness of the teaching module on integrating generative AI into post-secondary practice, I will use a combination of reflective feedback and qualitative data collection from two key stakeholder groups: students and faculty. The goal is to assess how well the materials support ethical AI use, critical thinking, and academic integrity. Evaluation will focus on the lesson plan and activities' perceived clarity, relevance, engagement, and applicability. Feedback will be gathered through short questionnaires after the

module is delivered, allowing for insights into learning outcomes and instructional impact.

### **Qualitative Questionnaire (Draft)**

#### **For Students**

1. What was the most useful part of the AI-integrated lesson for your learning?
2. Did the activities help you think critically about using AI tools? *Please explain.*
3. What suggestions do you have to improve the lesson or activities?

#### **For Faculty**

1. How relevant was the teaching module to your instructional context?
2. Did the BOPPS lesson plan and activity worksheets support your teaching goals? *Why or why not?*
3. What challenges do you foresee or did you face in implementing this module in your courses?
4. How did the module influence your thinking about AI integration and academic integrity?
5. What additional resources or support would help you use this module more effectively?

## **5) Conclusion: Importance of the Topic**

Integrating AI responsibly is now a core competence for post-secondary students and educators. Recognizing AI risks, unethical practices, and inequities, and engaging in thoughtful discussion, can deepen learning, clarify integrity, and strengthen skills such as ethical reasoning. This project aims to provide educators with a research-informed teaching module for using AI tools to enhance knowledge mobilization while preserving instructor-guided pedagogy.

By acknowledging ethical concerns, promoting critical thinking, and offering practical strategies, the project contributes to the professional discourse on AI in education. Shifting from policing academic integrity issues related to AI to building higher-order thinking with AI is now a core professional capacity in higher education.

Contemporary analyses emphasize complementary ideas and requirements to meet the moment when building out the project material:

- AI use is already pervasive (Winter, 2025).
- keep humans at the pedagogical centre (Flenady & Sparrow, 2025).
- design for empathy to prevent AI from undermining knowledge-building (Horvath, 2024).
- and upgrade assessment to improve analysis, evaluation, creation, and reflective work about AI outputs (Gonsalves, 2024).

In summary, this project will incorporate the following ideas and concepts into the deliverables:

- Embed self-intelligence development into AI-integrated coursework.
- Provide structured opportunities for ethical and reflective AI use.
- Teach students to evaluate AI outputs critically.

The outputs of this project aim to provide higher education instructors with practical, student-focused, research-informed strategies for integrating AI tools responsibly, ensuring that AI enhances learning while building critical thinking, equity, and meaningful engagement.

## 5) Annotated Bibliography

Alasgarova, R., & Rzayev, J. (2024). The changing role of educators in the age of artificial intelligence: Molding minds at the digital dawn. *Ubiquity Proceedings*, 4(1), 6. <https://doi.org/10.5334/uproc.128>

Alasgarova & Rzayev (2024) examine how artificial intelligence (AI) is reshaping the role of educators in higher education. They contend that instructors are becoming guides who must assist students in developing critical thinking skills and using AI ethically, rather than serving as the main source of knowledge in the classroom. Attention is drawn to issues like academic integrity, AI systems' bias, and ensuring that technology does not take the role of human judgment (Alasgarova & Rzayev,2024). This source informs my study since it highlights the need for lesson plans and professional development resources that show educators how to integrate AI without sacrificing the human element. Its findings will assist me in organizing the curriculum's introduction and developing activities that guide students in assessing AI outcomes and thinking critically about their reasoning. These ideas support my goal of promoting AI's ethical and responsible use in higher education.

Bozkurt, A., Xiao, J., Farrow, R., Bai, J. Y., Nerantzi, C., Moore, S., Dron, J., Stracke, C. M., Singh, L., Crompton, H., Koutropoulos, A., Terentev, E., Pazurek, A., Nichols, M., Sidorkin, A. M., Costello, E., Watson, S., Mulligan, D., Honeychurch, S., Asino, T. I. (2024). The manifesto for teaching and learning in a time of Generative AI: A critical collective stance to better navigate the future. *Open Praxis*, 16(4), 487–513. <https://doi.org/10.55982/openpraxis.16.4.777>

Bozkurt et. al (2024) article (manifesto) looks at how Generative AI tools are becoming part of mainstream higher education and what that means for teaching and learning. While AI can make learning more personalized and

efficient, it is not neutral and can have built-in bias. How these systems are built (language learning models) influences how people interact, communicate, and create content. This raises questions about who controls these tools, how they learn (machine learning) and what values and biases they carry. As AI spreads, instructors must contend with issues including maintaining monitoring, preserving evaluation fairness, and making sure that learning remains current. The study claims that AI reflects cultural and ideological values, which can reinforce prejudice and exclude opposing views. If these issues are not fixed, AI in education could undermine critical thinking and other essential human elements of learning.

Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: The state of the field. *International Journal of Educational Technology in Higher Education*, 20(1). <https://doi.org/10.1186/s41239-023-00392-8>

Crompton & Burke (2023) provide an overview of how AI is currently used in higher education. Research on AI applications, including automated grading, student assistance systems, and personalized learning, is reviewed in the article. The article highlights the benefits of AI, including its efficiency and scalability, as well as challenges such as discrimination, ethical questions, and the need for clear institutional policies and regulations guiding its use. They argue that educators must actively influence the use of AI to ensure that technology complements human judgment and meaningful learning rather than replacing it (Crompton & Burke, 2023). This source is relevant to my research because it highlights the importance of human supervision and responsible integration strategies, two essential elements of my training module. This article will help inform the design of lesson activities to encourage students to evaluate AI outputs critically. It supports my goal of promoting ethical, transparent, and reflective use of AI tools like Microsoft Copilot in higher education.

Flenady, G., & Sparrow, R. (2025). Cut the bullshit: why GenAI systems are

neither collaborators nor tutors. *Teaching in Higher Education*, 1–10.  
<https://doi.org/10.1080/13562517.2025.2497263>

According to Flenady & Sparrow (2025), referring to Generative AI as a mentor or collaborator is inaccurate because these systems are incapable of accepting accountability for the output they generate. They want more precise definitions of AI's function in education and caution against granting it authority over instructional choices. This piece establishes an important boundary for my project: AI should not be viewed as a teacher but as a tool to assist human judgment. These concepts direct the creation of the lesson plan's reflection exercises and the examples I include in my presentation. Students will be required to demonstrate their logic and distinguish it from the output of the AI. This keeps people accountable and guarantees that the module encourages AI's moral and practical application in education.

Gonsalves, C. (2024). Generative AI's impact on critical thinking: Revisiting Bloom's Taxonomy. *Journal of Marketing Education*.  
<https://doi.org/10.1177/02734753241305980>

Gonsalves looks at how Generative AI changes our perception of Bloom's Taxonomy and suggests a revised version that considers AI and satisfies contemporary learning standards. Improving AI-generated labour, ethical reasoning, and self-reflection are the main topics of the article. This is important for my project since it affects my lesson plan's standards and goals. Instead of just having students memorize facts, the approach challenges them to think critically, evaluate, and produce. Using this source, I will design tasks where students analyze AI outputs, explain how they have been modified, and consider the reasoning behind their decisions. These safeguards ensure that AI will complement deeper thinking and self-awareness rather than replace it.

## 6) Additional Articles & Resources

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Remember, Telling Is Not Teaching. *Harvard Business Impact*.

<https://hbsp.harvard.edu/inspiring-minds/10-creative-ways-to-better-engage-your-students>

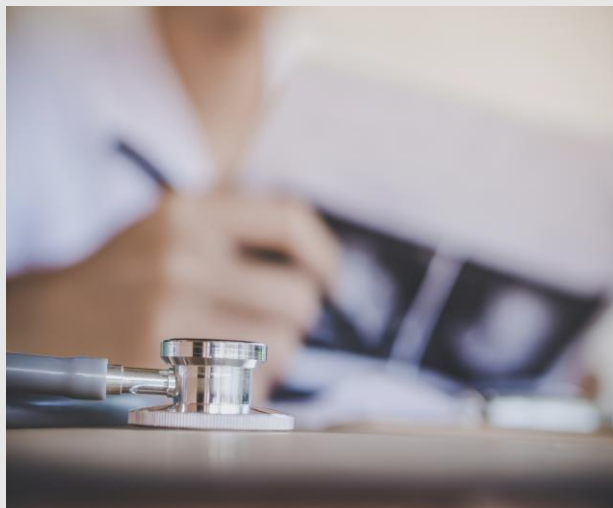
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<https://news.mit.edu/2023/explained-generative-ai-1109>.

## IQ\_AI Activity



Introducing the basics of Artificial Intelligence is a crucial step in preparing students for a future where AI technologies play a significant role in daily life and work. Educators play a crucial role in demystifying AI, making it accessible and understandable for students of all ages.

Teaching AI literacy involves:

- >Explaining fundamental AI concepts in an engaging and age-appropriate manner.
- >Encouraging curiosity by using current course material as a basis for AI inquiry
- >Fostering an understanding of both the potential benefits and ethical considerations of AI.

By integrating AI education into the curriculum, educators can help students develop a foundational understanding of AI, its inner workings, and its societal implications.

# This activity is for you to identify concepts of interest and learn to research them using Microsoft Co-Pilot

## LEARNING OBJECTIVES:

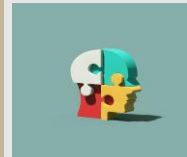
- Apply Copilot to explore business concepts.
- Design effective AI prompts.
- Critically evaluate AI-generated outputs.
- Reflect on learning and ethical use of generative tools.

AI offers a broad spectrum of capabilities that can enhance both teaching and learning experiences, making educational processes more efficient and adaptive to the needs of students and educators alike. The overall landscape of AI in education spans various dimensions, from administrative efficiency to instructional support, fundamentally reshaping traditional educational methodologies.

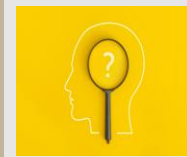
**Watch for these  
icons**



**Information**



**Activity**



**Questions**

These icons are used throughout the presentation to highlight information being conveyed, activities and questions.



## POLL

**Have you used  
AI tools for  
assignments?**

**How have you  
used AI?**



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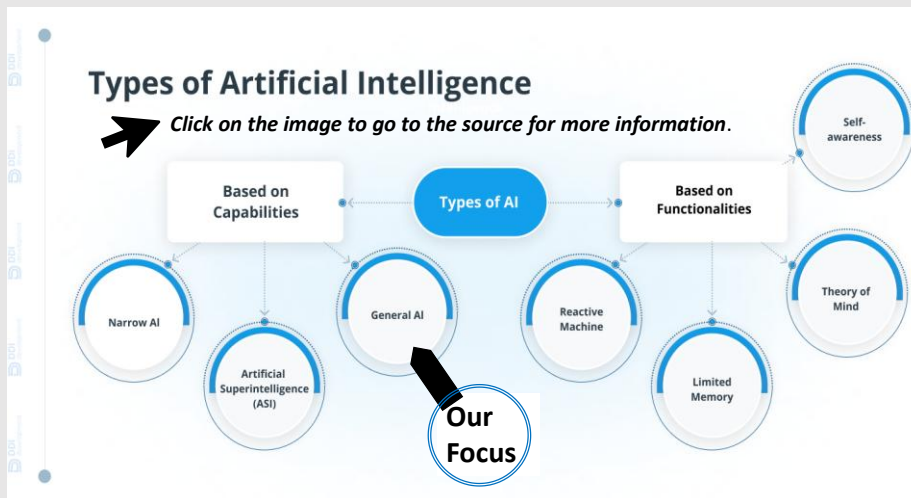
**Bridge in: Option of an open class discussion or opening a polling tool, such as Mentimeter. Instructors may need to set up the question in their own polling tool of choice**



# What is AI?



# Types of Artificial Intelligence



(DDI Development, 2024; Zewe, 2023).

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There are many types of AI – this chart represents 5 of them- others may show anywhere from 3 – 7 types  
**Summary of the Seven Types of AI (from DDI Development)**

The article categorizes AI into several types based on capabilities and functionality. Here are **seven key types** with brief descriptions:

### 1. Narrow AI (Weak AI)

**Description:** Specializes in one specific task, such as chatbots or recommendation systems.

**Use Case:** Customer service automation, product recommendations, and quality control in manufacturing.

### 2. General AI (Strong AI)

**Description:** Hypothetical AI that can perform any intellectual task a human can do.

**Use Case:** Advanced problem-solving across domains like supply chain optimization and drug discovery.

### 3. Artificial Superintelligence (ASI)

**Description:** A theoretical AI surpassing human intelligence in all aspects.

**Use Case:** Could revolutionize science, healthcare, and global challenges like climate change (still conceptual).

### 4. Reactive Machines

**Description:** Basic AI systems that react to current inputs without memory or learning.

**Use Case:** Chess programs, assembly-line robots.

### 5. Limited Memory AI

**Description:** Can use past data for short-term decisions.

**Use Case:** Self-driving cars, personalized recommendations.

### 6. Theory of Mind AI

**Description:** Future AI that understands emotions, beliefs, and intentions.

**Use Case:** Advanced social robots and empathetic customer service bots (still in development).

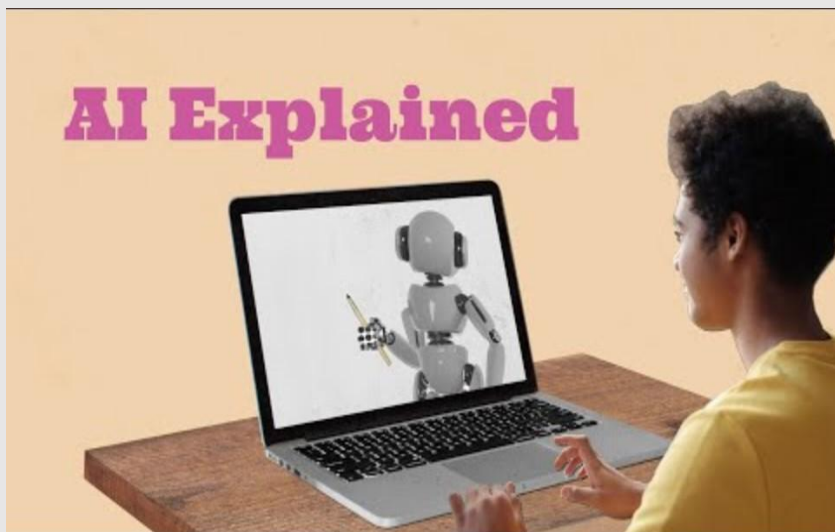
### 7. Self-Aware AI

**Description:** Hypothetical AI with consciousness and self-awareness.

**Use Case:** No real-world examples yet; remains speculative.



## AI Explained



Source: Common Sense Education. (2023, September 22). [What is AI?](#) [Video]. YouTube.

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Common Sense Education. (2023). [What is AI?](#) [Online video]. YouTube.

# What is Microsoft Co-Pilot

Copilot is an advanced AI assistant designed to help you with a wide range of tasks, from answering questions to providing support with your studies. It's like having a knowledgeable friend who can assist you anytime!

# Microsoft 365



**Source:** Microsoft 365. (2023, March 16). *Introducing Microsoft 365 Copilot | Your copilot for work* [Video]. YouTube.

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Micro  
soft

<https://www.youtube.com/watch?v=S7xTBa93TX8>

# Students and employees have access to [Microsoft Copilot](#) as part of Conestoga's institutional Microsoft Office license.

**NOTE: This slide can be updated with the appropriate institutional guideline or hidden if not applicable**

## **Generative AI Toolkit – Copilot Announcement to Students:**

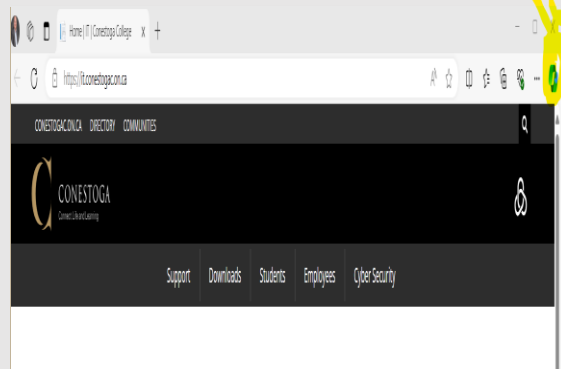
### **Key Messages for Faculty**

1. Students have access to Microsoft Copilot as part of Conestoga's institutional Microsoft Office license.
2. Students should always confirm with you first, if and when, they are able to use generative AI in the course you are teaching. **If they use it and it is not permitted, this is considered a violation of our Academic Integrity Policy.**
3. When permitted, students need to reflect the values of safe usage, integrity, and transparency.
4. Students can visit the Generative AI Toolkit created by the Library and Learning Services team to learn more about Copilot and Gen AI: [Home - Gen AI for Students - Library & Learning Services at Conestoga College](#)
5. If you are permitting / encouraging students to use generative AI in your course, request that they use Microsoft Copilot since it is part of the institutional license that Conestoga has with Microsoft.
6. By using Copilot with their Conestoga-issued email credentials, students are working in a protected environment which means that none of the information shared in the chat is stored or used to train AI models. Neither Conestoga, nor Microsoft, can access or use the data in any way.
7. If students need any assistance or have any questions about their program or the services and supports available to them at Conestoga, they can visit the [Student Success Services](#) portal.

**Always confirm with  
your instructor if  
and when you are  
permitted to use  
Copilot in this  
course.**

If you use it when it is not permitted, this will be considered a violation of our Academic Integrity policies.

## Use Edge to access Copilot



Alternate: <https://www.perplexity.ai>

It is recommended that students use Microsoft Edge browser to access the college version of the tool.

Authentication may be required.

If this is an issue, alternatively, students can access <https://www.perplexity.ai>

Finally, as an opt out, if students are not comfortable with using an AI tool then they can default to use google searches.



## AI Guiding Principles

### SAFE USAGE:

**Copilot is a protected environment.**

### INTEGRITY:

**Use Copilot only when permitted.**

### TRANSPARENCY:

**Acknowledge when you use Copilot.**

"Microsoft. (2024). *MS Copilot* (February 20,2024 version) [Large Language Model]. <https://copilot.microsoft.com/>."



The in-text citation is "(Microsoft, 2024)"

**There are three parts  
to the activity:**

**Part 1 – IQ**

**Part 2 – Co-Pilot**

**Part 3 – Critical  
Output Reflection**



(Kramer, 2022)

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Kramer, P. (2022) 10 Creative Ways to Better Engage Your Students: Remember, Telling Is Not Teaching

<https://hbsp.harvard.edu/inspiring-minds/10-creative-ways-to-better-engage-your-students>



## **This IQ activity is to build your skills and knowledge in using Microsoft Co- Pilot**

Record your information on  
the Word.docx template  
provided in the course shell:

- Three interests
- Your question
- Your prompts used
- Your personal reflection



## Part 1 – IQ

### Part 1 - IQ (Interests & Questions)

- [IQ cards](#) provide an interesting and efficient way for you to deepen insights about what you have learned, as well as raise questions after a lecture or class activity.
- Write three areas of interest (representing the “I” in IQ) based on the material covered to date in the course.
- From the three areas of interest, you will write a question (Q) that you have about the information.
- The outcome is to have you critically think about the course in an informal assessment of your learning and review key lesson content, which helps me assess whether you are grasping the material.

(Kramer, 2022)

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### IQ Cards

[IQ cards](#) provide an interesting and efficient way for students to share insights about what they have learned, as well as raise questions after a lecture or class activity. Students write an insight (representing the “I” in IQ) on one side of an index card. This insight can be related to something new they learned during that class, or it can be a “so what” statement, indicating how this information can be applied in professional or personal practice.

On the other side of the card, the students write a question (Q) that they have about the information. Typically, I like to have students share their cards with their peers in pairs and then I collect the cards to gather informal assessment data about student learning. This works as an excellent closure activity as it reviews key lesson content and helps me assess whether students are grasping the material.



## Part 1 – IQ Interests

### INTEREST (I)

1. Review the course key concepts and theories we have covered to date and identify three (3) that are of interest to you and record them on the assignment template.



## Part 1 – IQ Interests

### INTEREST (I)

*<INSERT RELEVANT COURSE  
TOPICS FOR STUDENTS TO USE  
FOR AI INQUIRY>*

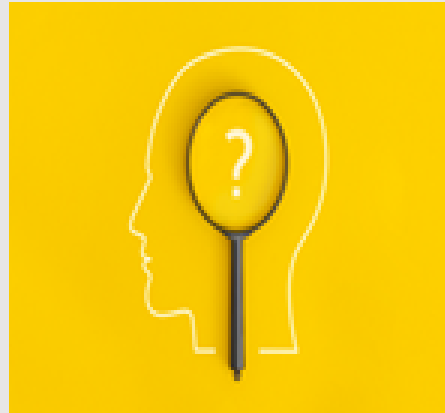


## Part 1 – IQ Question

### QUESTION (Q)

2. Based on the three (3) course key concepts and you identified which one of them is of the most interest to do more research on – what question would you want to ask - record your choice on the assignment template.

# Part 1 – IQ Question



(Kramer, 2022)

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## Part 2 –Researching your question using Co-Pilot – Prompt Engineering





## Prompt Engineering

### Generative AI

- Generative AI can be thought of as a machine-learning model that is trained to create new data, rather than making a prediction about a specific dataset.
- Generative AI can inherit and proliferate biases that exist in training data or amplify hate speech and false statements.
- The models have the capacity to plagiarize and can generate content that looks like it was produced by a specific human creator, raising potential copyright issues.

(Crabtree, 2024).

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Our focus is GEN AI



# Prompt Engineering

## Input and Output

Gen-AI systems are often prompted with natural language from a human, which can be text or voice, or copied text from elsewhere.

From these inputs (prompts) Gen-AI systems generate new content that resembles what they have learned. This could be text, images, videos, music, or code.

(Crabtree, 2024).

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Our focus is GEN AI



# Prompt Engineering

## Developing a Prompt to use around your question

A prompt is a set of instructions used to ask an AI tool to perform a task and produce an output.

The more specific, explicit, and concise the instructions are, the more successful the resulting outputs will be.



# Prompt Engineering

## Tips for Successful Prompts

A successful prompt (Crabtree, 2024) is comprised of several characteristics:

- **Instruction:** Clear and explicit instructions tell the AI tool what action(s) you want it to perform.
- **Context:** This information helps the AI tool understand your request's broader scenario or background and helps better tailor and frame its response.
- **Input data:** data is the information you provide to the AI tool for processing. It could be a paragraph or a set of numbers, for example.
- **Output indicator:** This part of your prompt tells the AI tool how to respond to your request. It might be a stylistic direction or citation style, for example.

(Crabtree, 2024).

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[bit.ly/AIPromptLibrary](https://bit.ly/AIPromptLibrary) – AI prompt library



## Part 2 – Co-Pilot – Develop a Prompt

### Develop a Prompt to use around your question.

- Ask Copilot how it can specifically help with your question.
- It provides custom insights tailored to your individual question.
- For those new to large language models (LLMs), experimenting with Copilot is great practice. You can learn how to maximize generative AI by exploring different prompts.

(Crabtree, 2024).

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## Part 2 – Co-Pilot Prompt Examples

### Prompt Examples \_ Action Stems

- Can you write/explain/ summarize/ provide/analyze/compose / re-write /translate ...
- Give me a table summarizing some of the key differences between ... and ...
- Rephrase this sentence: ..... / Expand the idea based on the following descriptors .....



## Part 2 – Co-Pilot Prompt Development 1) – pair & share

From prompt stems – can you develop a prompt that would answer your question?

### Work in pairs and share ideas on prompts

- Record your prompt on the template
- Record your prompt response
- Reflect on your prompt answer to your question, considering the quality of the answer and sources
- Record your analysis

Work in pairs to discuss how you might develop a prompt – share your ideas and test your prompt using your question as the base.

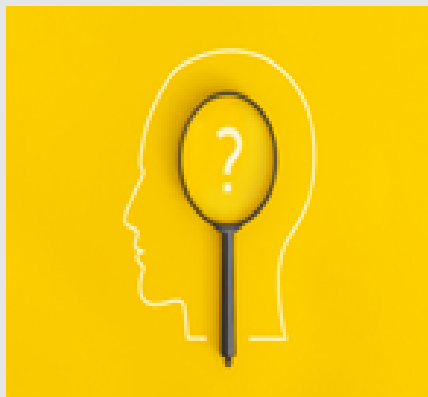


## Output Co-Pilot Prompts – record your prompts & answers

- Copy and record your prompts and responses in the Word.docx. Template provided.



## Part 2 – Co-Pilot Prompts





## Part 2 – Co-Pilot Prompt 2) Compare – copy and use this prompt and compare the output to your first prompt

Concept/Theory: **[Insert Concept/Theory Name]**

**Overview:** Provide a brief overview of the concept/theory. Explain its significance in strategic management and how it is applied in business contexts.

**Additional Information:** What are the key components or elements of this concept/theory? How does it integrate with other strategic management frameworks or models?

**Alternate Views:** Discuss any alternate views or criticisms of this concept/theory. Are there any limitations or challenges associated with its application?

**Current Business Examples:** Provide examples of current businesses or industries where this concept/theory is being applied. How are these businesses leveraging this concept/theory to gain a competitive advantage?

**References:** Include references to academic articles, case studies, or other credible sources that provide further information on this concept/theory.

Use this prompt and compare the output to the response you received from your prompt.



## Output Co-Pilot Prompts – record your prompts & answers

- Copy and record your prompts and responses in the Word.docx. Template provided.



# Sample output using this prompt

Concept/Theory: **Porter's Five Forces Model**

**Overview:**

Porter's Five Forces Model is a framework for analyzing the competitive forces within an industry. It helps businesses understand the intensity of competition and the profitability potential of an industry. The five forces include the threat of new entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitute products or services, and the intensity of competitive rivalry.

**Additional Information:**

The model emphasizes the importance of understanding the external environment and how these forces impact strategic decision-making. It integrates with other strategic management frameworks such as SWOT analysis and PESTEL analysis.

**Alternate Views:**

Critics argue that Porter's Five Forces Model may oversimplify the complexities of modern industries, especially in rapidly changing markets. Additionally, it may not fully account for the impact of digital transformation and globalization.

**Current Business Examples:**

In the tech industry, companies like Apple and Google use Porter's Five Forces to assess competitive pressures and inform their strategic initiatives. For instance, Apple analyzes the bargaining power of suppliers to negotiate better terms and maintain its competitive edge.

**References:**

- Rothaermel, F. T. (2021). Strategic Management (6th ed.). McGraw-Hill Education.
- Porter, M. E. (1979). How Competitive Forces Shape Strategy. Harvard Business Review.
- Case Study: Apple's Strategic Management Practices. (2023). Business Strategy Journal.

Source: Conversation with Copilot, 9/30/2024

(1) undefined. <https://bing.com/search?q=>.

(2) undefined. <https://hbsp.harvard.edu/inspiring-minds/10-creative->.

(Microsoft, 2024)

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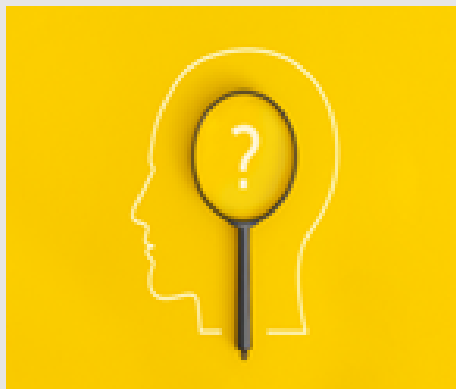
This is a response to the structured prompt provided.



## Part 2 – Co-Pilot Prompts – compare and refine your prompt question

- After comparing the two prompts, would you make any refinements to improve your response?
- Apply the criteria of
  - Is the information/source real
  - Is the source relevant
  - Did Copilot accurately interpret the source material
- **Collect effective prompts in your Word.docx template**

**Part 2 – make sure  
you have recorded  
your prompts and  
responses – you  
should have two!**





## Part 3 – Output Validation, Reflection and Critical Analysis





# What Are AI Hallucinations?

- AI hallucinations occur when generative AI tools produce outputs that are factually incorrect, fabricated, or misleading.
- Caused by pattern-based generation without real-world understanding or fact-checking.
- Examples include fake academic references, misquoted statistics, or incorrect definitions.
- Students may unknowingly use false information in assignments.
- Always verify AI-generated content using trusted sources and academic databases.

(Alison, n.d.).

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## Recognizing Bias in AI Outputs

### Sources of AI Bias

Bias arises from training data, algorithm design, and societal context influencing AI outputs.

### Evaluating Disparate Impact

Assess AI decisions for disproportionate effects on groups based on race, gender, or age.

### Cross-Referencing Outputs

Compare AI-generated content with real-world data and trusted sources for accuracy.

### Monitoring Representation

Check for lack of diversity in AI outputs to detect hidden biases in data or models.

(Alison, n.d.).

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Recognizing bias in AI outputs is an essential step in mitigating its impact and ensuring AI systems are used responsibly. As AI technologies become increasingly integrated into decision-making processes across sectors such as education, healthcare, finance, and law enforcement, the potential for biased outcomes grows. These biases can stem from the data used to train models, the design of algorithms, and the societal contexts in which AI is deployed. To address this, users and developers must adopt strategies that help identify and reduce bias in AI-generated content. One effective strategy is to evaluate outputs for disparate impact, which involves assessing whether the AI's decisions disproportionately affect certain groups based on race, gender, age, or other characteristics. This can reveal hidden patterns of discrimination that may not be immediately apparent. Another approach is to cross-reference AI outputs with real-world data and established knowledge. By comparing AI-generated information with verified sources, users can detect inaccuracies and ensure the reliability of the content. Additionally, comparing outputs across different demographics can help identify inconsistencies and potential biases. For example, if an AI tool provides different recommendations for similar individuals based solely on demographic factors, this may indicate a biased algorithm. Monitoring for the absence of diversity in AI outputs is also crucial. A lack of representation in generated content or decisions may signal underlying bias in the training data or model design. Finally, seeking external validation from independent, reputable sources can help confirm the accuracy and

fairness of AI outputs. This includes consulting academic literature, expert opinions, and trusted databases. By implementing these strategies, users can foster a more ethical and equitable use of AI technologies, promoting transparency and accountability in AI-driven systems.



## Part 3 – Output Co-Pilot Prompts – validate your references & sources

- Validate any references provided by Co-pilot by clicking on links and then provide a proper APA@ Conestoga citation





## Part 3 – Reflection - reflect on your experience and key learnings

Reflect on the output from Copilot:

- What is your assessment of the output
- Compare the output to your text – same, different – correct, incorrect
- What did you learn from this exercise?



## Submit your Word.docx to the activity dropbox

Your final submission will include:

- Interests – three (3) concepts or theories you selected
- Question – selected to use in your AI prompt
- Your prompt (s) plus output
- Validation of References by converting to APA@Conestoga format
- Your reflection

## Gen AI Toolkit

The Library and Learning Services team have created a website where you can learn more about Copilot and how to use it safely, with integrity, and transparency.

For instructors.

**Want to learn  
more or earn a  
certificate**

**Gen AI for Students  
Library & Learning Services\_Gen AI for  
Students' Home**

<https://lib.conestogac.on.ca/genai>

**Get Started with Microsoft Copilot  
- Learning Path on LinkedIn  
Learning and earn a certificate of  
completion.**

[Get Started with Microsoft Copilot](#)

**Want to learn  
even more!**

[eCampusOntario AI in Education Consortium,](#)

[Canadian Digital Learning Research  
Association survey on Digital Learning & AI](#)

[CIFAR Pan-Canadian AI Strategy,](#)

[Institutional task forces at University of British  
Columbia \(UBC\)](#)

[Institutional task force at Toronto Metropolitan  
University \(TMU\).](#)



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Microsoft. (2023). *Introducing Microsoft 365 Copilot | Your Copilot for Work* [Video]. *YouTube*. <https://www.youtube.com/watch?v=S7xTBa93TX8>

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# BOPPPPS Lesson Plan: IQ\_AI using Microsoft Co-Pilot Activity

(Teaching and Learning Conestoga BOPPPPS (adapted from [Instructional Skills Workshop \(ISW\) Handbook for Participants](#))

<p><b>Lesson Topic:</b></p> <p><b>IQ_AI Activity using Microsoft Copilot</b> 120 minutes (105 minutes + 15-minute break)</p>	<p><b>Tech Required/Strategies...</b></p> <ul style="list-style-type: none"> <li>• Presentation tools for PPT.</li> <li>• Laptops or desktops with access to the LMS.</li> <li>• Internet Access – videos [YouTube]; Mentimeter.</li> </ul>	
<p><b>Bridge-In</b></p> <ul style="list-style-type: none"> <li>• Welcome and Attendance.</li> <li>• Check for LMS module login &amp; access.</li> <li>• Resources – Mentimeter (optional).</li> <li>• Resources – YouTube.</li> </ul>		
<p><b>LEARNING OBJECTIVES:</b></p> <ul style="list-style-type: none"> <li>• Apply Copilot to explore business concepts.</li> <li>• Design effective AI prompts.</li> <li>• Critically evaluate AI-generated outputs.</li> <li>• Reflect on learning and ethical use of generative tools.</li> </ul> <p><b>LINK TO BLOOM TAXONOMY:</b></p> <p>Bloom’s Levels: Apply, Create, Evaluate, Reflect</p>	<p><b>Pre-Assessment -Menti meter or Discussion</b></p> <p>Engage students and activate prior knowledge about AI.</p> <p>- Ask:</p> <ul style="list-style-type: none"> <li>• Have you used AI tools for assignments?</li> <li>• How have you used AI?</li> </ul>	

# BOPPPS Lesson Plan: IQ\_AI using Microsoft Co-Pilot Activity

(Teaching and Learning Conestoga BOPPPS (adapted from [Instructional Skills Workshop \(ISW\) Handbook for Participants](#))

Presentation/Practice/Participation		
Duration	Facilitator or Learner Activity	Materials Required
10 Minutes	<ol style="list-style-type: none"> <li>1) Bridge In – (see note above)</li> <li>2) Learning Outcomes</li> <li>3) Pre-Assessment -Mentimeter or Discussion: Engage students and activate prior knowledge about AI. -</li> </ol>	Slide 1 - 4
10 Minutes	<p><b>What is AI?</b>            Video: Common Sense Education. (2023). <a href="#">What is AI?</a> [Online video]. YouTube (2:37 minutes)            Discussion and questions.</p>	Slides 5 - 7
5 Minutes	<p><b>What is Microsoft Co-Pilot</b>            Video: <a href="#">Introducing Microsoft Co-pilot (2023)</a> [Online video]. (1:37 minutes)            Discussion and questions.  <i>Alternative AI site: Perplexity AI (alternative): <a href="https://www.perplexity.ai">https://www.perplexity.ai</a></i></p>	Slides 8 - 9
10 minutes	<p><b>Using Microsoft Co-Pilot @ Conestoga College</b>  <b>Using Microsoft Edge to access Co-Pilot</b>  <b>AI Guiding Principles</b>            Review usage policies and best practices.            Discussion and questions.</p>	Slides 10 - 13
10 minutes	<p><b>Part 1 – IQ Cards</b>            Activity:            - Students identify three course concepts of interest.            - Write one question based on the most compelling concept.            - Use the Word.docx template provided in the course shell.</p>	Slides 14 – 20 Tools: Activity Worksheet
25 minutes	<p><b>Part 2 – Copilot Prompt Development</b>            Activity:            - Students develop a prompt using their question (Slides 19)            - Use prompt engineering tips (Slide 22 -25).            - <b>Pair &amp; Share – Developing Prompts (Slide 26 - 28)</b></p>	Slides 21 – 35 Tools: Activity Worksheet

## BOPPPPS Lesson Plan: IQ\_AI using Microsoft Co-Pilot Activity

(Teaching and Learning Conestoga BOPPPS (adapted from [Instructional Skills Workshop \(ISW\) Handbook for Participants](#))

	<ul style="list-style-type: none"> <li>- <b>PROMPT 1)</b> Enter the prompt into Microsoft Copilot</li> <li>- Analysis, record the output and consider how to refine the prompt</li> <li>- <b>PROMPT 2)</b> Enter the refined prompt into Microsoft Co-Pilot</li> <li>- Compare with a second structured prompt (Slide 31).</li> <li>- Record responses in the Activity Worksheet.</li> </ul>	
<b>20 minutes</b>	<p><b>Part 3 – Output Validation &amp; Reflection</b></p> <p>Activity:</p> <ul style="list-style-type: none"> <li>- Validate sources from Copilot responses.</li> <li>- Convert references to APA@Conestoga format.</li> <li>- Reflect on accuracy, relevance, and ethical use - Use guiding questions from Slide 38.</li> </ul>	<p>Slides 36 – 39</p> <p>Tools: Activity Worksheet</p>
<b>10 minutes</b>	<p><b>Post-Assessment – Submit Activity Worksheet</b></p> <p>Activity:</p> <ul style="list-style-type: none"> <li>- Students share one insight and one challenge from using Copilot.</li> <li>- Use pair-share or whole-class discussion.</li> </ul>	<p>Slide 40 -41</p>
<b>5 minutes</b>	<p><b>Summary &amp; Closure (5 minutes)</b></p> <p>Activity:</p> <ul style="list-style-type: none"> <li>- Recap key takeaways: prompt design, ethical AI use, and reflection.</li> </ul> <p><b>Optional Extension</b></p> <p>Gen AI Certificate Path:</p> <ul style="list-style-type: none"> <li>- LinkedIn Learning – Get Started with Microsoft Copilot:  <a href="https://www.linkedin.com/learning/paths/get-started-with-microsoft-copilot">https://www.linkedin.com/learning/paths/get-started-with-microsoft-copilot</a></li> <li>- Gen AI Toolkit – Conestoga Library: <a href="https://lib.conestogac.on.ca/genai">https://lib.conestogac.on.ca/genai</a></li> </ul>	<p>Slides 42 - 44</p>

# BOPPPPS Lesson Plan: IQ\_AI using Microsoft Co-Pilot Activity

(Teaching and Learning Conestoga BOPPPS (adapted from [Instructional Skills Workshop \(ISW\) Handbook for Participants](#))

<b>Post-Assessment</b> <ul style="list-style-type: none"><li>- The instructor collects informal feedback on learning.</li><li>- Optional – use student feedback form</li></ul>	<b>Summary</b> <p>Reiterate the components of the activities exercised, along with the support available. (see reflections on the lesson below)</p>
<b>Reflections on the Lesson</b> <ul style="list-style-type: none"><li>• <b>AI Literacy:</b> Students were introduced to generative AI, particularly Microsoft Copilot, to build a foundational understanding and responsible usage.</li><li>• <b>Prompt Design:</b> Learners practiced crafting and refining AI prompts to explore course concepts, emphasizing clarity, structure, and purpose.</li><li>• <b>Critical Thinking &amp; Ethics:</b> Students evaluated AI-generated outputs for accuracy, relevance, and ethical considerations, including citation and academic integrity.</li><li>• <b>Active Learning:</b> The lesson uses participatory methods like IQ cards, pair-share, and reflection to deepen engagement and assess understanding.</li><li>• <b>Institutional Support:</b> The activity aligns with Conestoga College’s AI usage policies and promotes safe, transparent use of institutional tools like Copilot and the Gen AI Toolkit.</li></ul>	

# AI Activity Worksheet

## Bridge In

Reflect on your prior experience with AI tools. Have you used tools like ChatGPT or Copilot before? What was your experience like?

## Part 1 – Interests (I)

Record three-course (3) concepts that interest you.

Interest 1

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Interest 2

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Interest 3

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## Part 1 - Question (Q)

Based on one (1) of your interests, write a question you want to explore further using AI tools.

Your Question

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## Part 2 - Practice

Following the instructions in the presentation for developing prompts, develop and test them using Microsoft Copilot. Record your prompts and the responses you received.

Prompt 1

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Response to Prompt 1

<PASTE THE RESPONSE HERE>

Prompt 2

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Response to Prompt 2

<PASTE THE RESPONSE HERE>

# AI Activity Worksheet

## Part 3 – Output Validation and Reflection

### Content

Review the content of the responses and critically assess the connection to the questions asked and the relation to the overall material you are studying.

- What is the quality and connection of your output to the question asked and the course?
- Compare the output to your text; same, different, correct, incorrect?

### Sources

Validate any sources used. Convert them to APA format.

### Reflection

Reflect on your learning experience. Assess the accuracy and relevance of AI-generated content.

#### Reflection Question 1

What is your assessment of the output?

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#### Reflection Question 2

Compare the output to your course materials – was it accurate, relevant, or misleading?

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#### Reflection Question 3

What did you learn from this exercise?

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---

### APA Citation Example

Microsoft. (2024). MS Copilot (February 20, 2024, version) [Large Language Model]. <https://copilot.microsoft.com/>.

In-text citation: (Microsoft, 2024)

# Integrating Generative AI into Post-Secondary Teaching Practice

## Qualitative Questionnaire

### For Students:

1. What was the most useful part of the AI-integrated lesson for your learning?

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2. Did the activities help you think critically about using AI tools? Please explain.

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3. What suggestions do you have to improve the lesson or activities?

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# Integrating Generative AI into Post-Secondary Teaching Practice

## Qualitative Questionnaire

### For Faculty:

1. How relevant was the teaching module to your instructional context?

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2. Did the BOPPS lesson plan and activity worksheets support your teaching goals? Why or why not?

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3. What challenges do you foresee, or did you face in implementing this module in your courses?

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4. How did the module influence your thinking about AI integration and academic integrity?

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5. What additional resources or support would help you use this module more effectively?

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