

# AI in Education

*Where are We and Where Do We Need/  
Want to Go ?*



<https://bit.ly/3C6J6v>



# AI in Education: Where are We and Where Do We Need/Want to Go ?

**WHERE ARE  
WE?**

**WHERE IS AI IN  
EDUCATION?**

**CULTURALLY  
RESPONSIVE  
CONSIDERATIONS  
IN AI**

**PROMPT  
ENGINEERING**

**WHERE ARE WE  
GOING?**

**QUESTIONS  
AND  
ANSWERS**

# PRESENTERS

DR. JULIE MUELLER



DR. KERI EWART



# What is your earliest memory of using artificial intelligence?

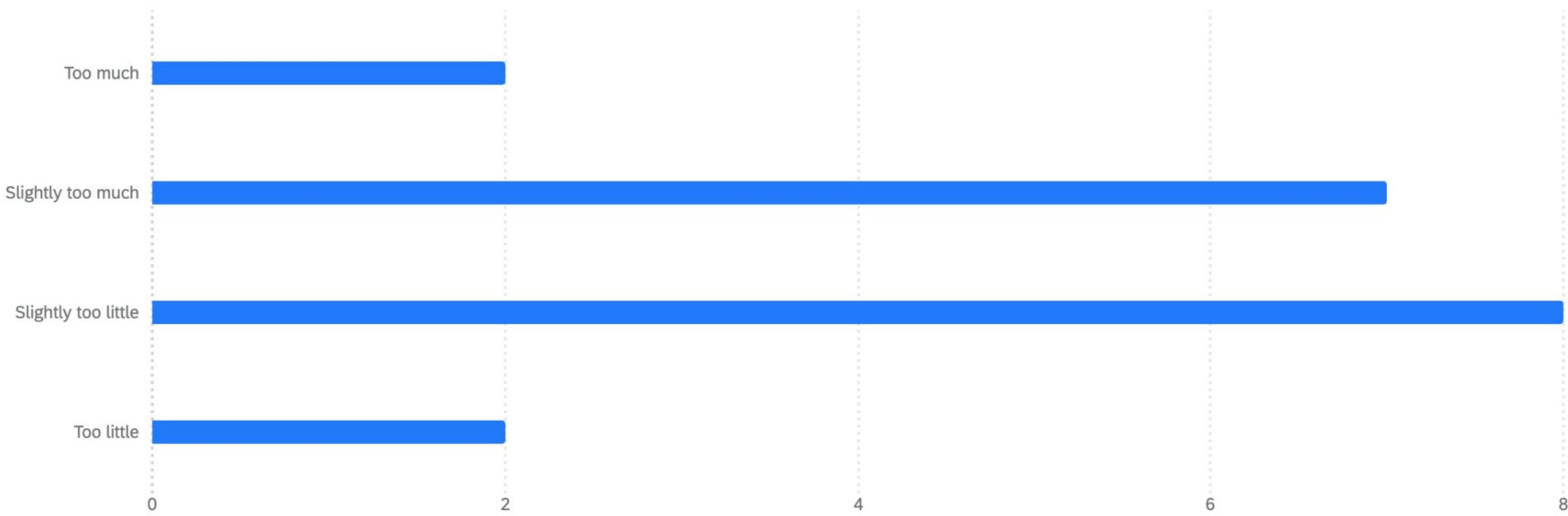


**Consider the following questions,**

- a) Do you use Siri, Alexa, “Hey Google”
- b) Do you have Spam filters? Face ID/thumbprint to access your phone/computer?
- c) Do you use a roomba?
- d) Do you watch Netflix? Apple TV? Amazon?
- e) Are you on Instagram/Facebook/Linked In/SnapChat?
- f) Do you use Google Maps/Waze?
- g) Do you use ride share apps? (Uber/Lyft)
- h) Do you do your banking online? e-payments/e-transfers?

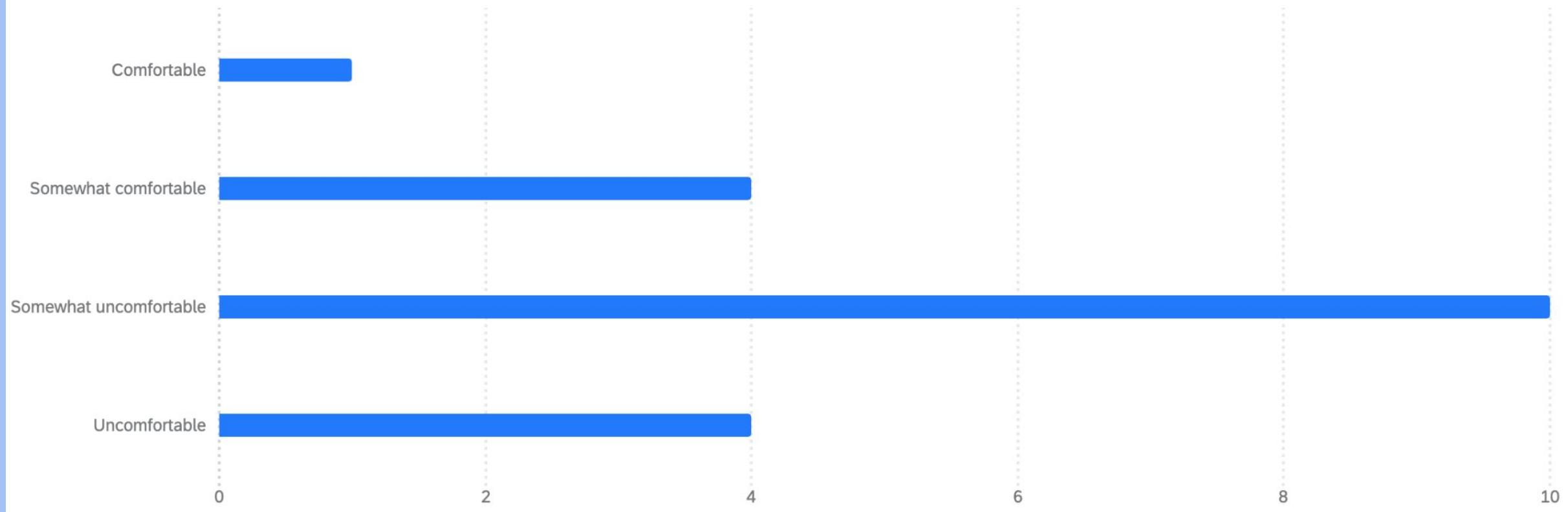
# The Results Are In

How prevalent is the current use of AI in education? 19 ⓘ >



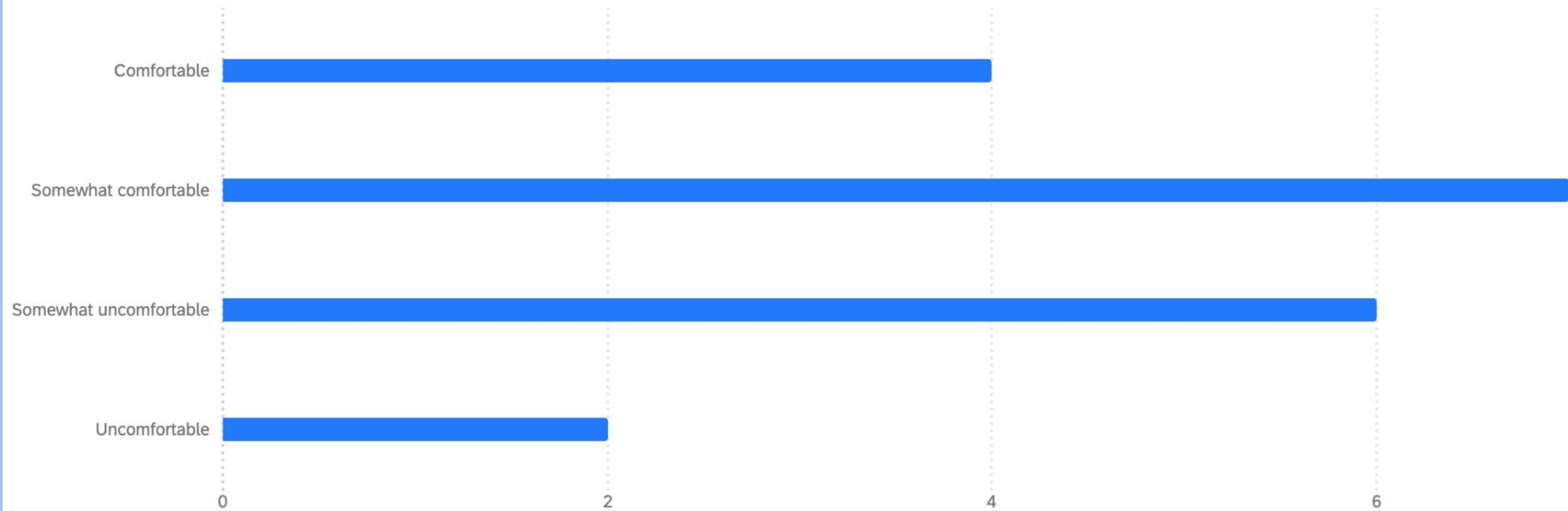
# The Results Are In

How comfortable are most educators in your workplace with using AI as part of their professional practice? 19 ⓘ



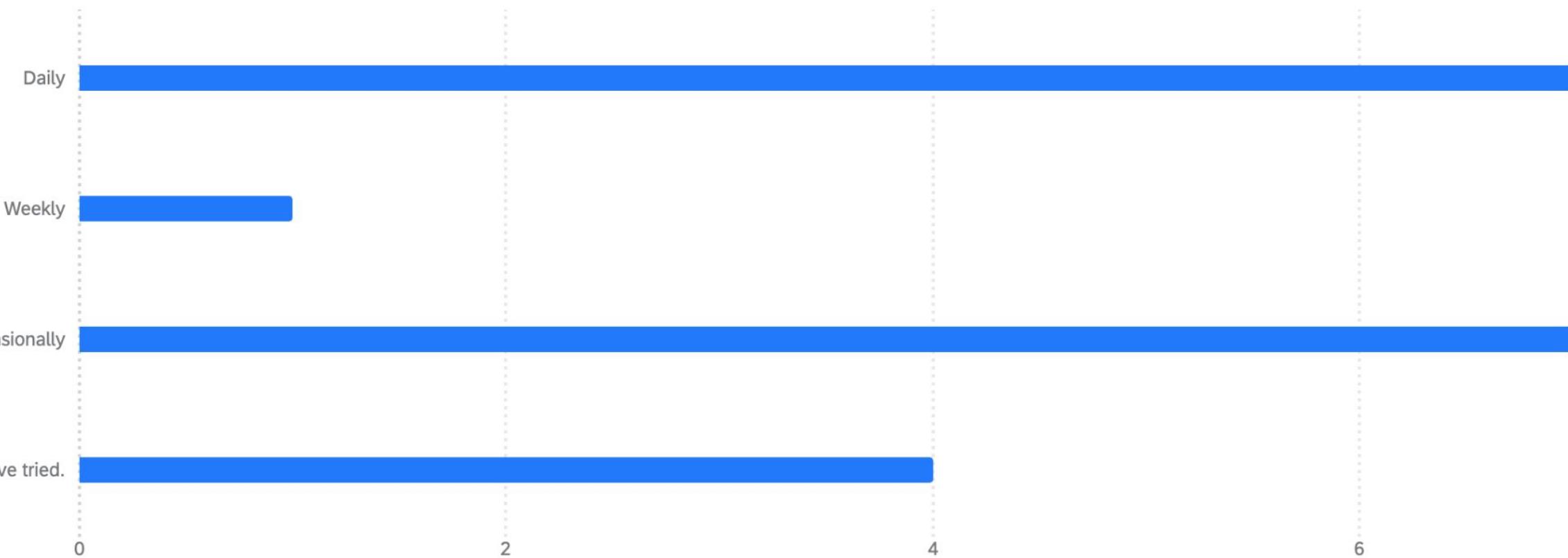
# The Results Are In

How comfortable are you with using AI as part of the professional practice? 19 ⓘ



# The Results Are In

How often do you use AI tools in your professional practice? 19 ⓘ



# The Results Are In

## PD Participation:

**Yes:** 53%

**No:** 47%

## Type of PD:

**Conference:** 60%

**Coaching:** 10%

**Webinar:** 70%

**In-Person Workshop:** 40%

**Other:** 10%

## Informal AI

**Yes:** 63%

**No:** 37%

## Types of Involvement

**Coaching/Mentoring:** 19%

**Peer-to-Peer Support:** 58%

**Self-Study/Exploration:** 92%

**Online Videos:** 50%

**Read Articles:** 67%

**Other:** 8%

## What AI Tools are being used and How?

### **Chat GPT**

- Email
- Idea generation
- Editing/Rewording
- Simplifying text
- Searching topics

### **Canva**

- Planning
- Slide decks/presentations
- Organization

### **Brisk**

### **Quizizz**

### **Menti**

### **Padlet**

### **Elicit**

- Research

### **Mapping**

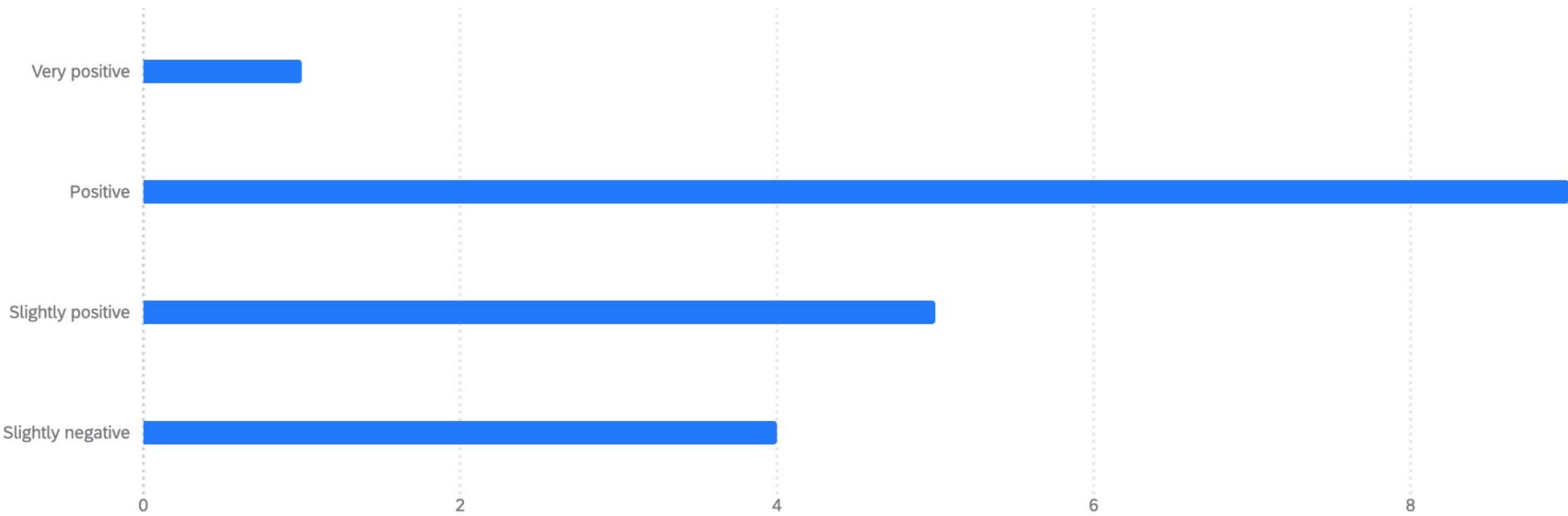
- Finding restaurants
- Directions

### **Speech to Text**

- Sending memos/texts while driving

# The Results Are In

What is your overall perception of the use of AI in education? 19 ⓘ



# What are the Challenges of Using AI in Education?

**Erosion of Critical Thinking Skills**

**Bias and Accuracy Issues**

**Academic Integrity and Plagiarism**

**Designing Authentic Assessment**

“Ethical concerns such as data privacy, security, and algorithmic bias arise with the widespread adoption of AI in education, necessitating clear guidelines and ethical frameworks to ensure responsible AI integration.”  
(Sappaile, et al., 2024, p.5).

**Lack of Training, Understanding and Transparency**

**Equity and Access**

**Over-Reliance on Non-Academic Sources**

**Preserving Creativity and Diverse Thought**

# What are the Benefits of Using AI in Education?

**Enhanced Inquiry and Critical Literacy**

**Efficient Lesson Planning and Idea Generation**

**Personalized Assessment and Support**

**Data-Driven Decision Making**

"Artificial Intelligence is systematically transforming global education systems, facilitating ubiquitous access to classrooms at all times. Learners and educators extensively use AI to improve personalized learning experiences and broaden access to high-quality education via diverse forms such as distant, open, online, and digital education." (Sain, 2024, p. 7).

**Increased Efficiency and Productivity**

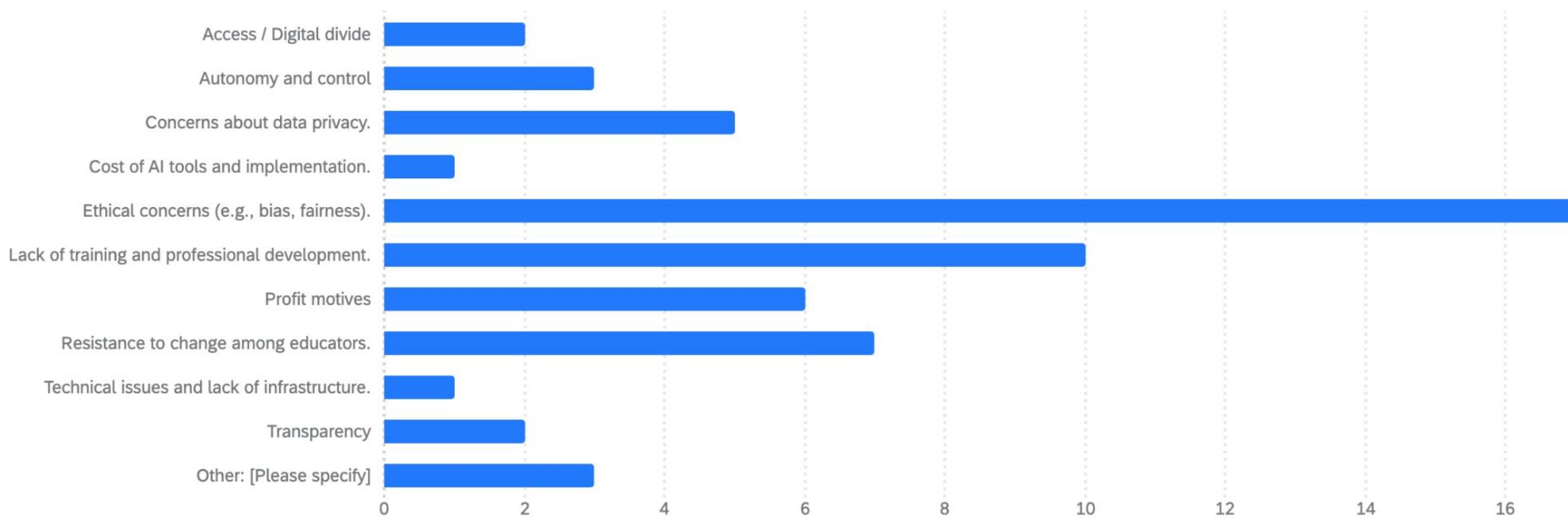
**Diverse Information Access**

**Student Empowerment and Visualization**

**Encouragement of New Perspectives**

# The Results Are In

What do you consider to be the top three challenges to the effective use of AI in education? (Select up to three): 19 ⓘ ...



# The Results Are In

## AI Can Help Educators- Productivity/Time/Energy

**Strongly Agree:** 47%

**Agree:** 21%

**Somewhat Agree:** 32%

## The Use of AI is Detrimental to the Education Sector

**Strongly Agree:** 5%

**Agree:** 5%

**Somewhat Agree:** 32%

**Somewhat Disagree:** 21%

**Disagree:** 16%

**Strongly Disagree:** 21%

## Data-driven insights to enhance learning?

**Strongly Agree:** 11%

**Somewhat Agree:** 47%

**Somewhat Disagree:** 37%

**Strongly Disagree:** 5%

## Due to Privacy/Data Security AI Should not be Used Until Issues are Solved

**Strongly Agree:** 5%

**Agree:** 21%

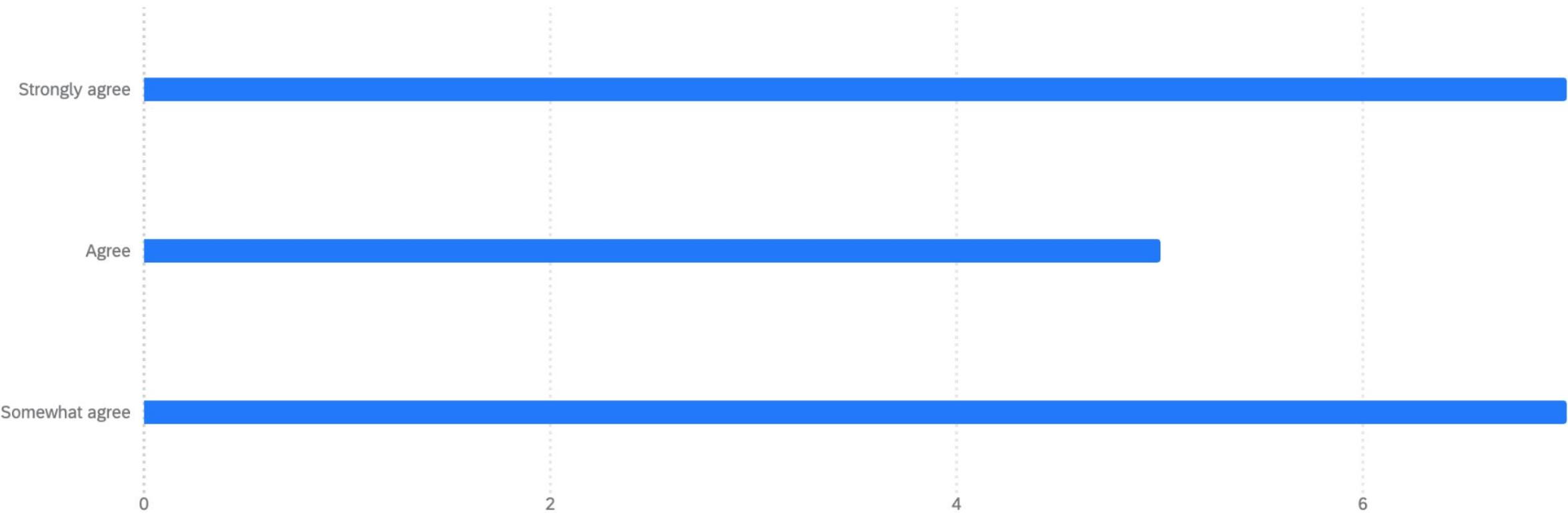
**Somewhat Agree:** 26%

**Somewhat Disagree:** 32%

**Disagree:** 16%

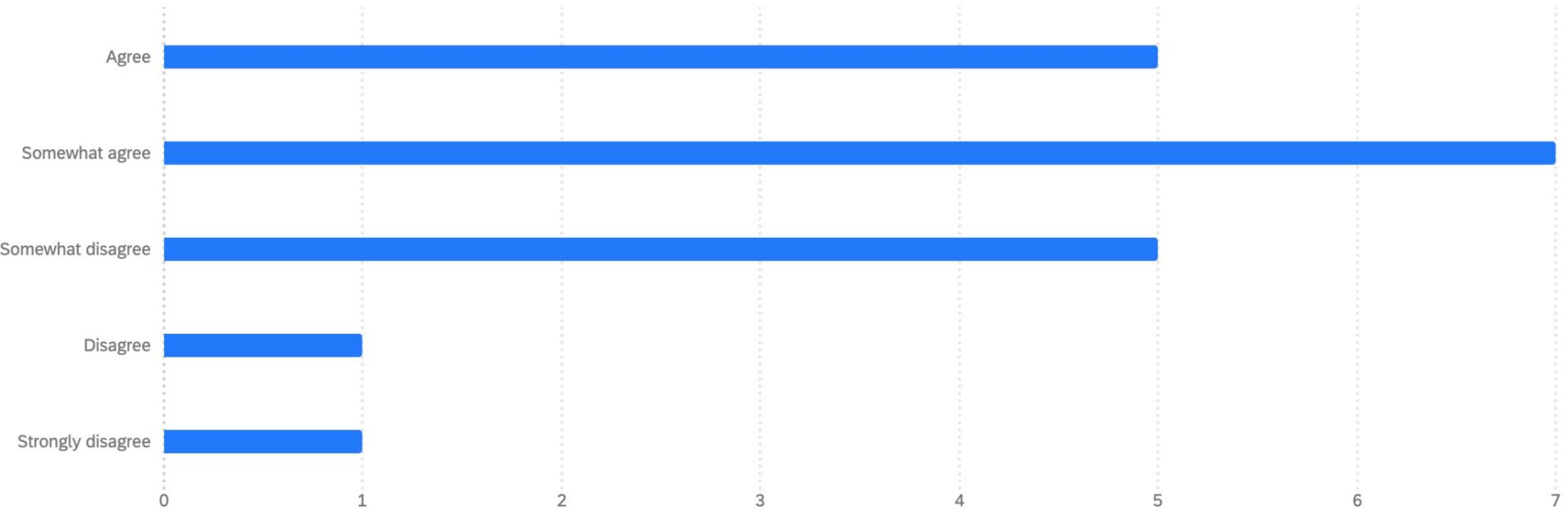
# The Results Are In

AI can help personalize and differentiate learning to meet the needs of individual learners. 19 ⓘ



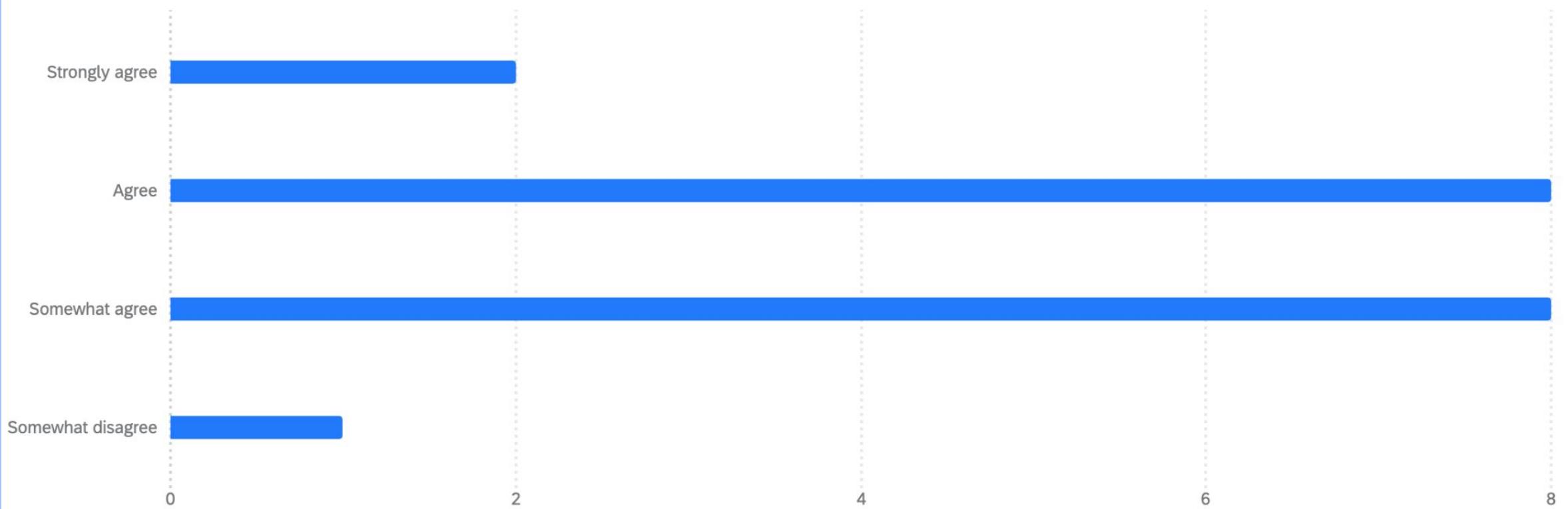
# The Results Are In

AI can be inherently biased and cannot be trusted to create culturally responsive, inclusive and equitable learning experiences. 19 ⓘ



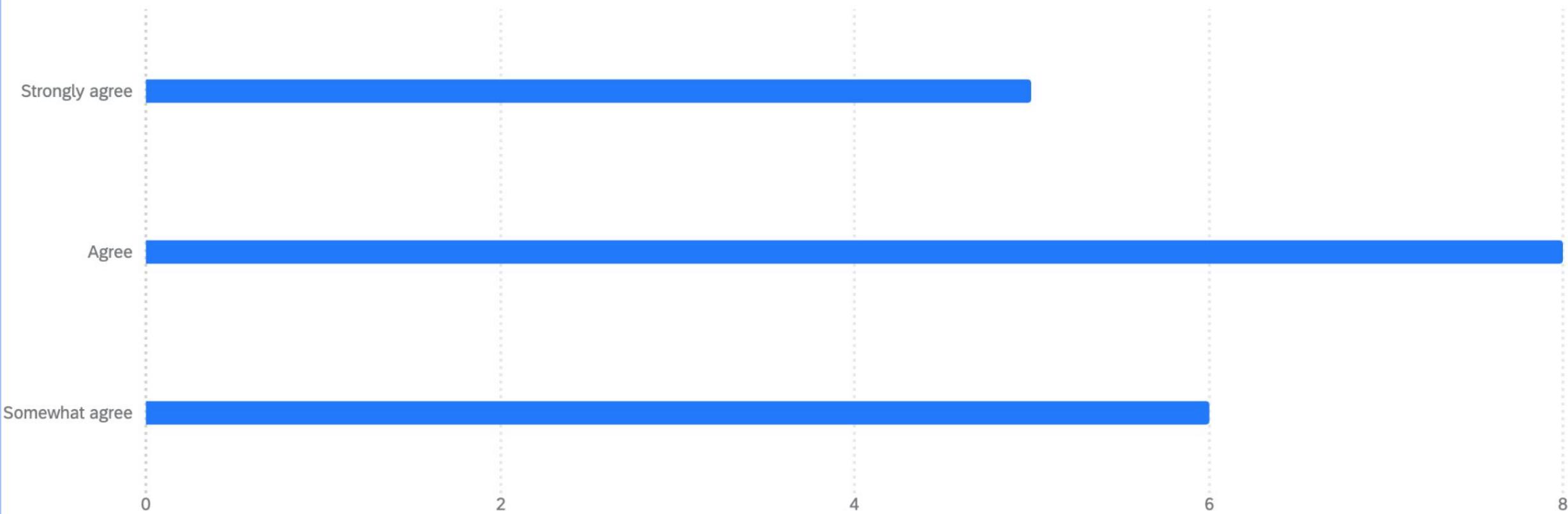
# The Results Are In

AI can enhance student engagement by creating interactive learning experiences. 19 ⓘ



# The Results Are In

AI can be used to support students with diverse learning needs. 19 ⓘ



# What is Needed for AI Training

**Awareness and Familiarity with AI Tools**

**Ethical and Responsible AI Use**

**Practical Applications and Inclusive Practices**

**Professional Learning Time and Classroom-Based Support**

“Key challenges include the need for ongoing professional development for educators in AI technologies and pedagogical practices. Teachers require training in prompt engineering and AI integration into curricula, which must be restructured for AI literacy. This multidisciplinary approach involves computer science, ethics, and critical thinking. Rapid AI advancements risk leaving educators behind, potentially leading to classroom management issues if students surpass teacher knowledge.” (Dimitriadou & Lanitis, 2023, p. 20-21).

**Clear Understanding of AI's Role in Assessment/ Student Learning**

**Policy, Legal and Institutional Guidance**

**Growth Mindset and Critical Thinking Development**

**Ongoing Subject Specific Training and Collaboration**

# What Would You Like to See/Need?

- AI to enhance lesson planning and UDI
- Make the products accessible to all
- Purchase and training on those tools that can be used to increase efficiency, e.g., how can reporting be done with AI in relation to progress to inform teacher who can then share with parents and students
- How to apply AI to administrative tasks and to educational undergraduate/graduate and teacher education programs
- Case Studies and examples of effective teaching and learning strategies (i.e., Flipped Classroom)
- Access to the "Pro" versions of these services.
- Quick and easy to use tools that support differentiation and student engagement
- Presentation generation
- Ethical ramifications and guidelines, confidentiality, intellectual property
- No need for expanded use at this time

# How Do We Compare?

Sample # 1: 304 (Faculty and In-Service Teachers) Sample # 2: 19 (Faculty and In-Serve Teachers= Us)

Prevalence of AI in Education - Sample 1 vs Sample 2

A line chart comparing the prevalence of AI in education between Sample 1 (yellow line with dots) and Sample 2 (orange line). The y-axis represents the prevalence score, ranging from 0 to 100. Both samples show a general upward trend over time, with Sample 1 reaching a higher peak of approximately 85 around the third measurement point.

Measurement Point	Sample 1	Sample 2
1	~10	~10
2	~25	~25
3	~85	~80
4	~75	~70
5	~10	~10

Challenges of AI in Education - Sample 1 vs Sample 2

A line chart comparing the challenges of AI in education between Sample 1 (yellow line with dots) and Sample 2 (orange line). The y-axis represents the challenge score, ranging from 0 to 100. Both samples show a general downward trend over time, with Sample 1 ending slightly higher than Sample 2 at approximately 10.

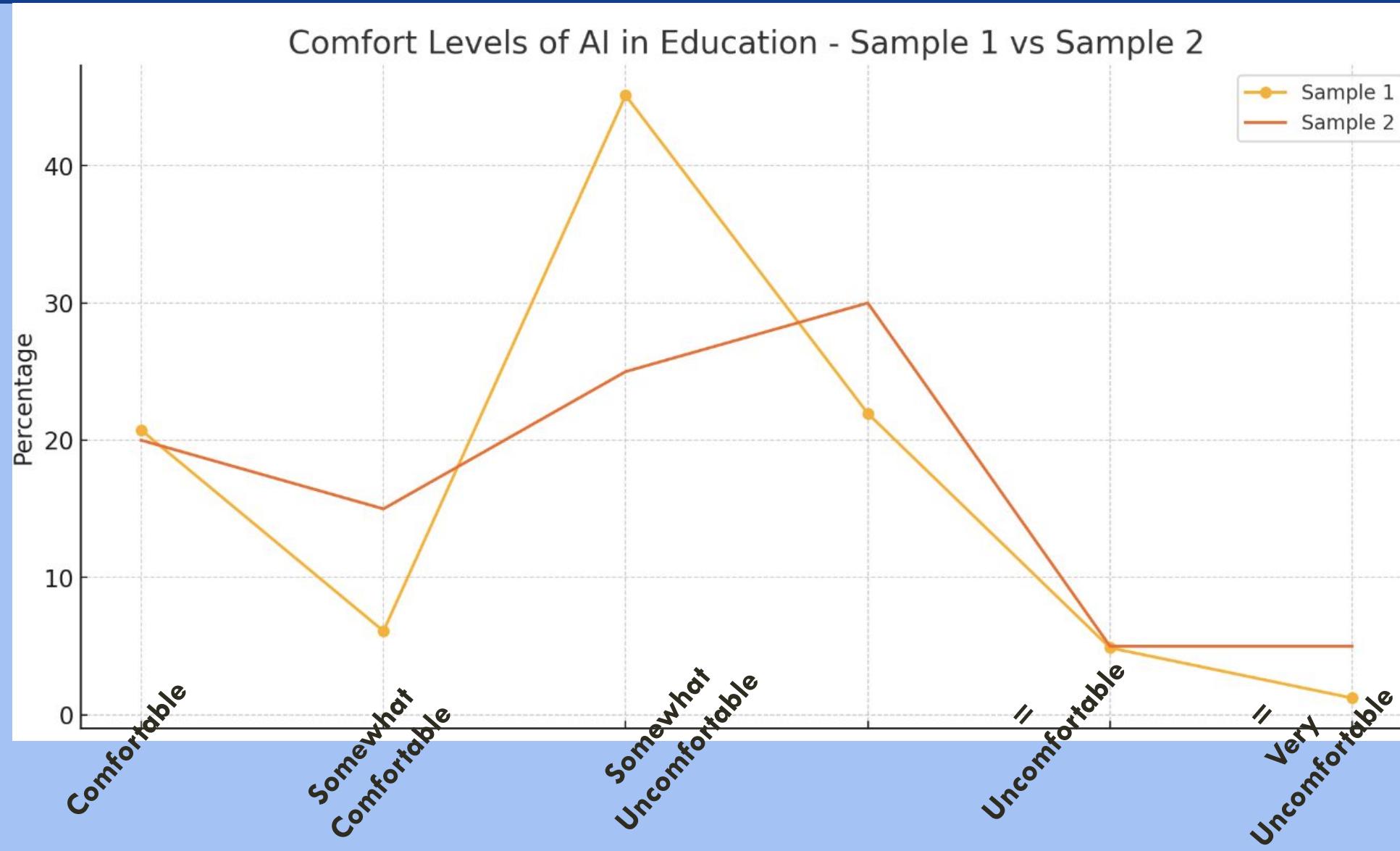
Measurement Point	Sample 1	Sample 2
1	~45	~40
2	~10	~15
3	~25	~20
4	~10	~10
5	~10	~10

Benefits of AI in Education - Sample 1 vs Sample 2

A line chart comparing the benefits of AI in education between Sample 1 (yellow line with dots) and Sample 2 (orange line). The y-axis represents the benefit score, ranging from 0 to 100. Both samples show a general upward trend over time, with Sample 1 reaching a higher peak of approximately 32 around the fifth measurement point.

Measurement Point	Sample 1	Sample 2
1	~10	~10
2	~25	~20
3	~45	~40
4	~25	~30
5	~32	~25

# How Do We Compare?



# Complex Change Theory

## Managing complex change

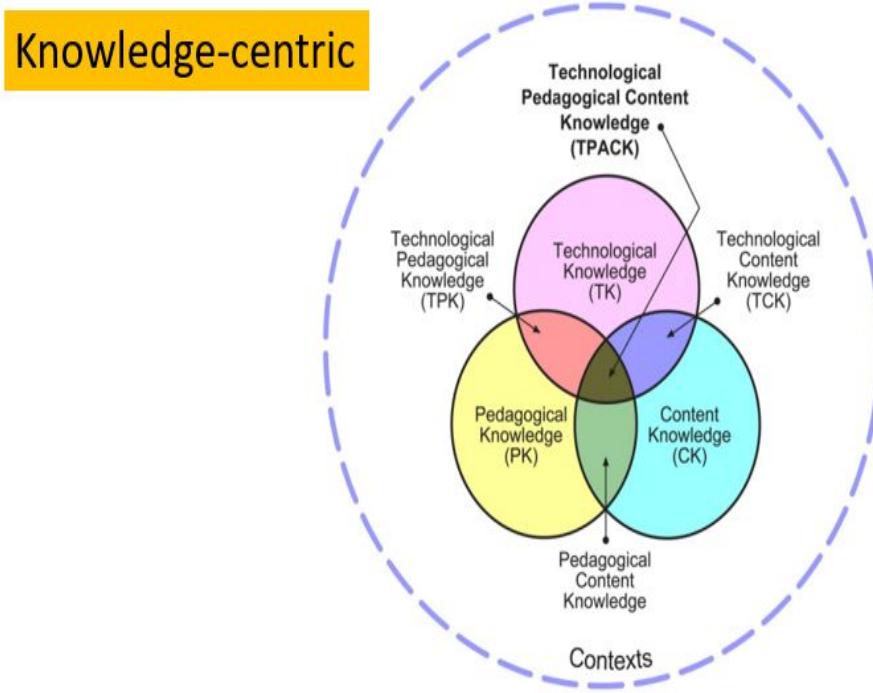


The Managing Complex Change model was created by Dr. Mary Lippitt (1987).

@addyosmani

# Integrating Technology and Innovation in Education

## Technological Pedagogical Content Knowledge (TPACK)



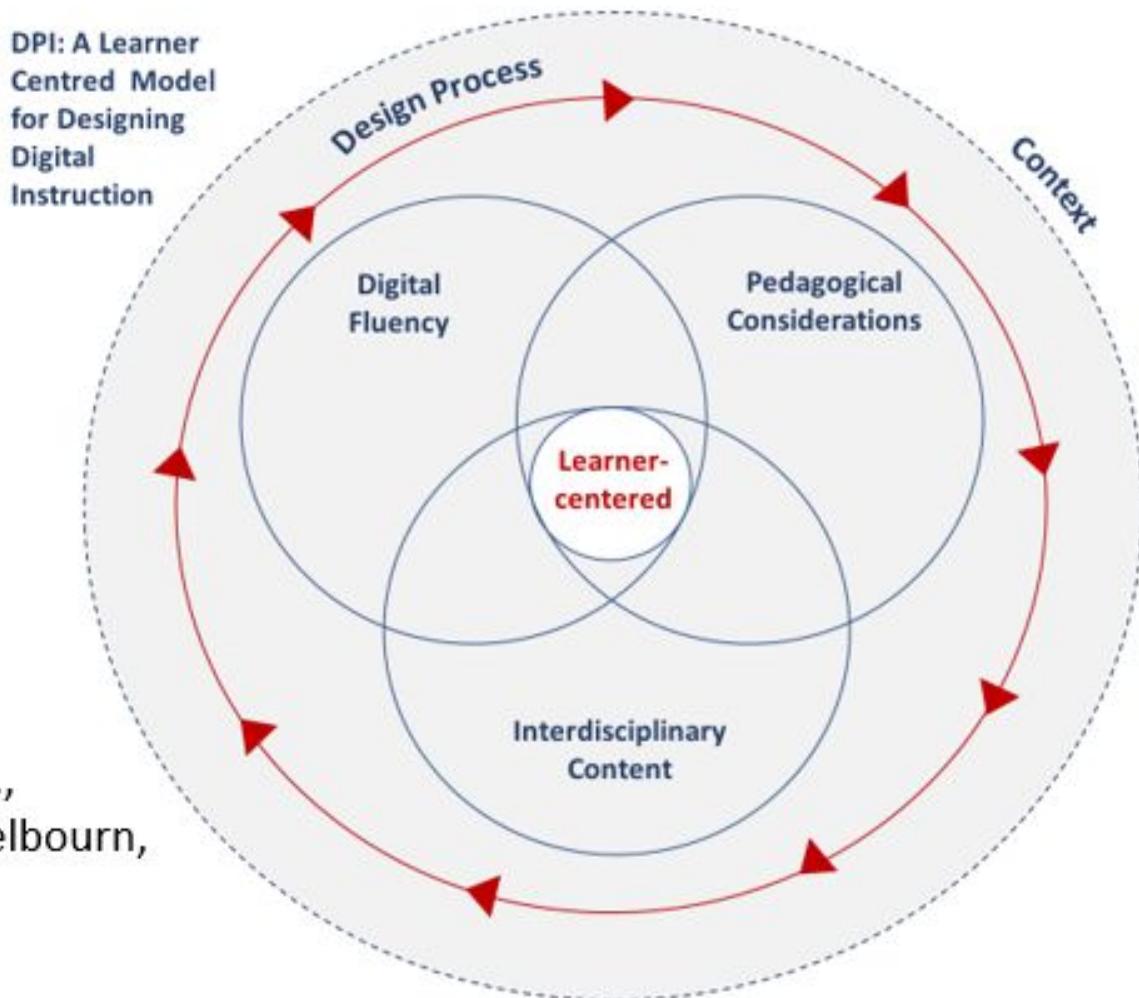
Mishra & Koehler, 2006



Mueller, Archer, Wood, & DePasquale, 2016

# DPI: A learner centred model for designing digital instruction

Learner-centric



Khirwadkar, A., MacLeod, K.,  
Manners, A., Mueller, J., Welbourn,  
S., & Yennemadi, K (2021)

# Integrating AI in Teacher Education

## Learning About AI

Research & Professional Learning

### Key Constructs of AI Literacy:

- Recognize
- Know and Understand
- Use and Apply
- Evaluate
- Create
- Navigate Ethically

Generative AI for Educators—example of self-paced course from Google

## Teaching With AI

Teaching and Learning / Teaching Excellence and Innovation / Instructional Approaches / Generative AI

Teaching Excellence and Innovation

Inclusive Pedagogy

Instructional Approaches

Active

Experiential

Flexible

GENERATIVE AI

Online

Universal Design

Teaching Dossiers

Workshops and Events

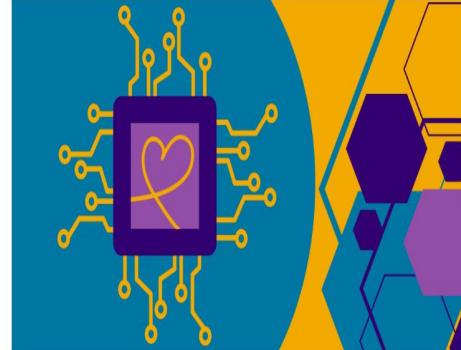
CONTACT US:

Teaching Excellence and Innovation Team

E: [wleteaching@wlu.ca](mailto:wleteaching@wlu.ca)

Holly Gibbs, Manager, Teaching Excellence

### Generative AI



Whether you're an AI enthusiast or newly curious about implications for education, the pathways through our resources are designed to support the diverse demands of instructors' schedules, engagement preferences, and distinct classroom environments. Explore the role of AI and its impact on your teaching at a P.A.C.E. that suits you:

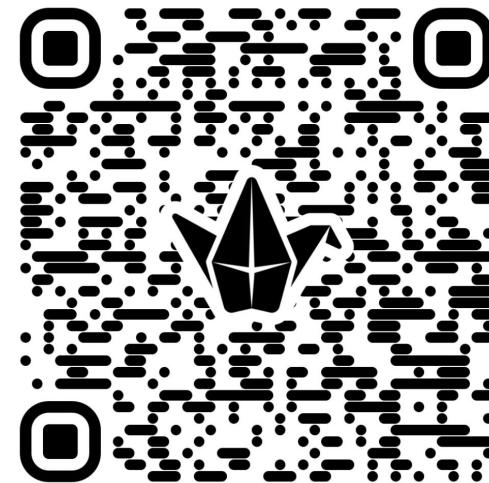
P – Peer-led learning & collaboration: Engage in dynamic discussions with colleagues, raising questions, sharing insights, experiences, and innovative AI applications in the classroom. These

## Teaching How To Teach About AI and With AI

- use case proposal with C21 Canada
- curriculum mapping and content analysis
- school board partners and practicum experience

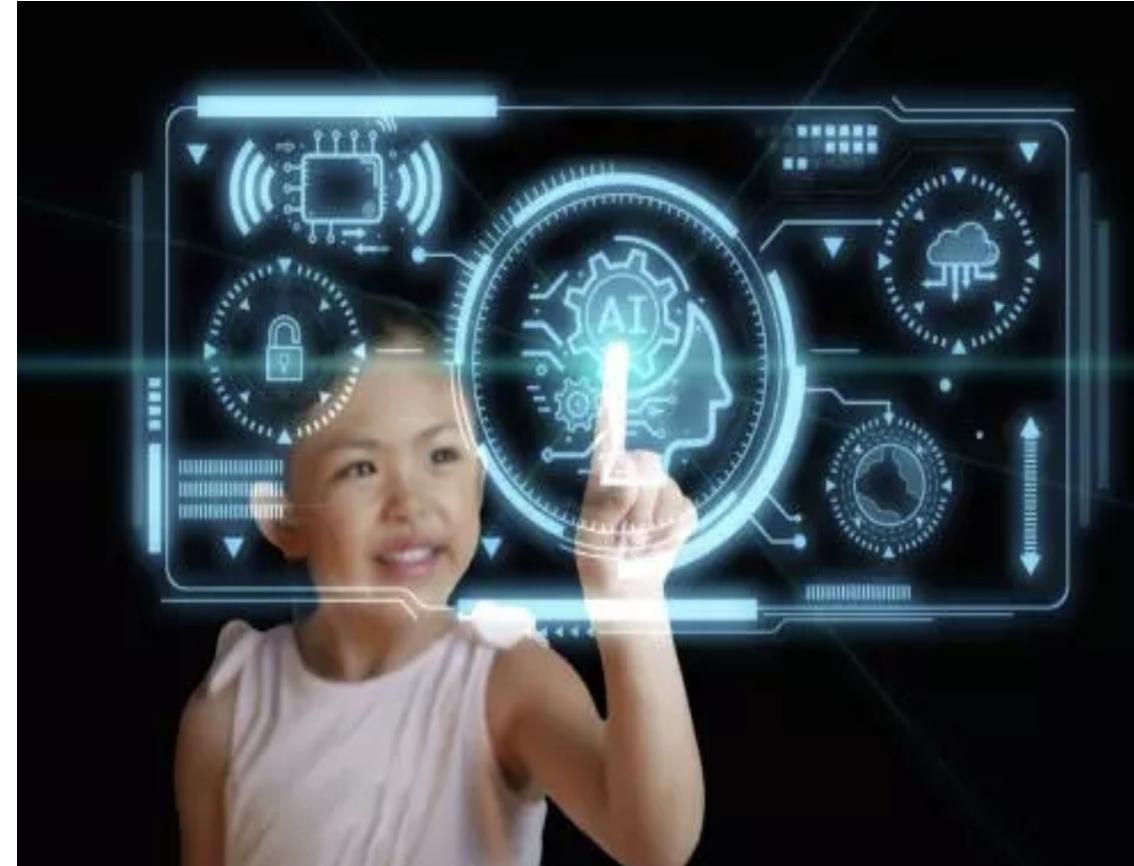
# Next (first?) Steps...

Teacher efficacy is a key indicator of successful technology integration in education. (Mueller et al., 2008).



# Culturally Responsive Considerations with Artificial Intelligence

To get the most out of the session, please go onto a GenAI tool of your choice (i.e., ChatGPT, Gemini or CoPilot)



ChatGPT



CoPilot



# A Culturally-Responsive Approach to using AI

## Basics of AI prompting and Guided Practice

- Macro-prompts
- Micro-prompts
- Culturally Responsive Micro-prompts
- Contextualized Culturally Sustaining  
Micro-prompts

# Communicating with AI- The Powerful Prompts

**What are Prompts?** are the instructions you give to AI tools to guide them toward a specific outcome, like asking a question or telling AI what you want.

**The Craft of Prompt Engineering-** Crafting clear and effective prompts is an essential skill (prompt engineering) like having

- Be specific/contextualized
- Build context
- Create a natural flow



Lesson Planning

[VIEW ALL](#)

 RUBRICS

Create formatted rubrics for any type of assignment

 BLOOM'S TAXONOMY

Create a Bloom's Taxonomy for any grade level and subject

 Unit or Lesson Objectives

Develop learning objectives for all your units and lessons

 Lesson Plans

Create a lesson plan customized to your classroom's needs

[VIEW ALL](#)

Professional Development

[VIEW ALL](#)

 Professional Development Idea Generator

Brainstorm ideas for your professional development projects using an AI chatbot

 Professional Development Workshop Planner

Plan professional development workshops and presentations using an AI chatbot

 Team Building Activities

Create engaging team building activities for your students or staff

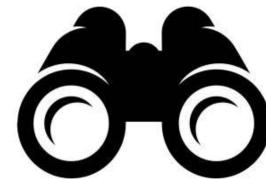
[VIEW ALL](#)

## Making AI Work for You

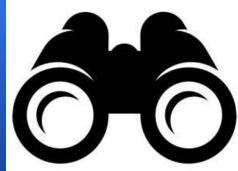
Think of prompting AI as engaging in a dialogue. By giving clear, structured prompts, you can guide the AI to produce the results you need.

# Macro Prompting

*Macro Prompt :*



- a) **High-level instructions** : Macro prompting involves giving broader, less detailed commands. The prompt focuses on the overarching task or outcome, leaving room for the system to interpret and decide on details.
- b) **General guidance** : The AI is expected to fill in gaps or interpret subtasks based on a big-picture goal.
- c) **Use case** : Useful when you want the system to handle most of the decisions and steps involved in generating a response. For example, "Design a literacy lesson for Kindergarten students/Design a Physics lesson for Grade 12 Science students/Design a panel discuss framework for Sustainable Development for grad students" is a macro prompt, where the AI determines the structure and details of the content.



# Macro Prompting - Practice

**Macro Prompt :**

ChatGPT



Claude



Jasper AI



CoPilot



Gemini



Perplexity



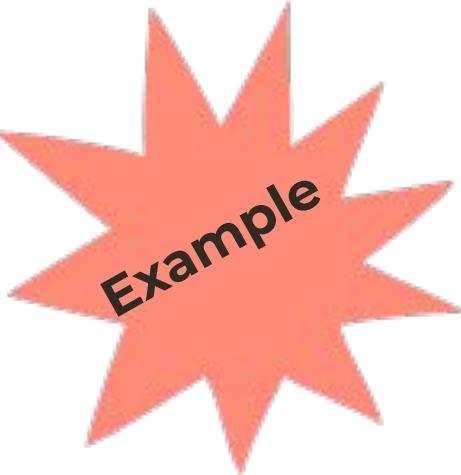
Open AI Playground



- a) **High-level instructions** : Macro prompting involves giving broader, less detailed commands. The prompt focuses on the overarching task or outcome, leaving room for the system to interpret and decide on details.
- b) **General guidance** : The AI is expected to fill in gaps or interpret subtasks based on a big-picture goal.
- c) **Use case** : Useful when you want the system to handle most of the decisions and steps involved in generating a response. For example, "Design a literacy lesson plan for Kindergarten students/Design a Physics lesson for Grade 12 Science students/Design a panel discuss framework for Sustainable Development for graduate students" is a macro prompt, where the AI determines the structure and details of the content.

**Macro Prompt:**

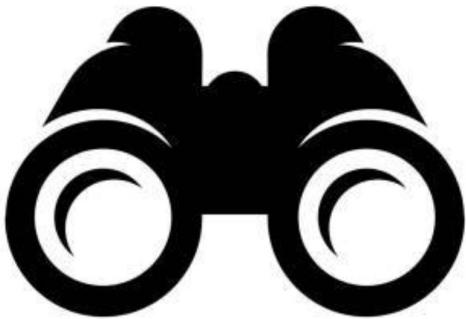
Create your own macro-prompt using an GenAI tool of your choice or the ChatGPT that you signed up for prior to this session.



Example



Design a literacy lesson plan for Kindergarten students



## Macro-Promptin

### Kindergarten Literacy Lesson Plan

**Theme:** Letter Recognition and Phonics

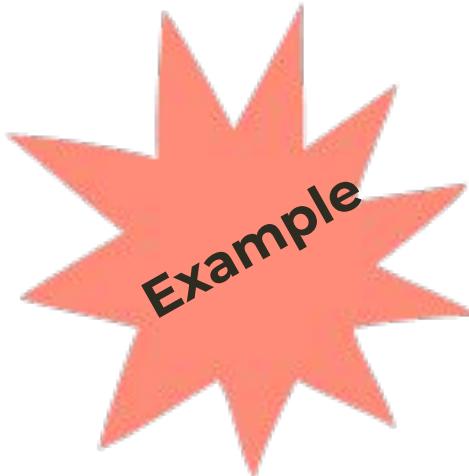
**Duration:** 30-40 minutes

**Objective:**

- Students will be able to recognize the letter "S" and its corresponding sound /s/.
- Students will practice writing the letter "S" and identify objects that start with the "S" sound.

**Materials Needed:**

- Alphabet chart
- Flashcards with pictures of objects starting with "S" (sun, sock, snake, star, etc.)
- Whiteboard or chart paper
- Markers or dry-erase markers
- Playdough (optional)
- "S" letter worksheet (with space for tracing and drawing objects starting with "S")
- Song: "The S Sound Song" (or any phonics song that includes the /s/ sound)
- Small toy or object starting with the "S" sound (optional)



## Grade 12 Physics Lesson Plan: Projectile Motion

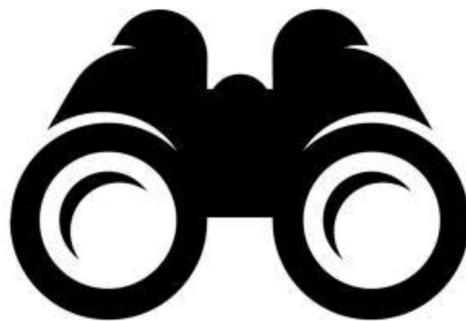
**Lesson Title:** Understanding Projectile Motion with Real-Life Applications

**Grade Level:** 12 **Subject:** Physics **Duration:** 60 minutes **Topic:** Projectile Motion

---

**Lesson Objectives:** By the end of the lesson, students will be able to:

- Define projectile motion and identify key components (initial velocity, angle of projection, range, height, and time of flight).
- Apply kinematic equations to solve problems involving projectile motion.
- Analyze real-life applications of projectile motion.
- Conduct a hands-on experiment to observe and calculate projectile trajectories.



**Macro-Promptin**

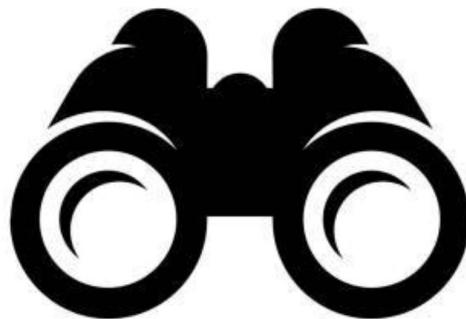
Example



## Panel Discussion Framework for Sustainable Development for Graduate Students

Title:

*Bridging Knowledge to Action: A Graduate Student Perspective on Sustainable Development*



Macro-Promptin

### 1. Objective of the Panel Discussion:

- To engage graduate students in a dialogue about the importance of sustainable development in their respective fields of study.
- To showcase interdisciplinary approaches, research initiatives, and practical strategies that contribute to sustainability.
- To inspire critical thinking and innovation for tackling global sustainability challenges.
- To facilitate networking among graduate students, academics, and practitioners working on sustainable development.



# Acronym- ‘CREATE’

## C larity/Character:

- Clearly define the task or intent of the prompt. Describe the role the AI is to assume. Avoid using filler words or jargon” (Act as...; a university professor teaching first year BEd students, a Grade 1 teacher)

## R elevant/Request:

- Provide relevant details (specific keywords, facts, tone, audience). Clearly and specifically define the request. “I want you to...” (Summarize, organize, compare, analyze, elaborate, reimagine, explain, design, etc.)

## E xamples:

- Give examples to provide context and direction (website link, upload a document) and be ethically engaged in your use of the AI (more to come)

## A void ambiguity/Additions:

- Focus on the key information. Refine the task by deleting unnecessary details. Describe a point of view to consider or a style to use.

## Tinker: Test and refine- multiple iterations

- For example, a 3-part lesson plan or assessment rubric (dialogue, syllabus, lesson plan, assessment, VR exp.)

## E valuate/Extras:

Evaluate output, adjust, any additional information you wish to provide.

# Micro-Prompting

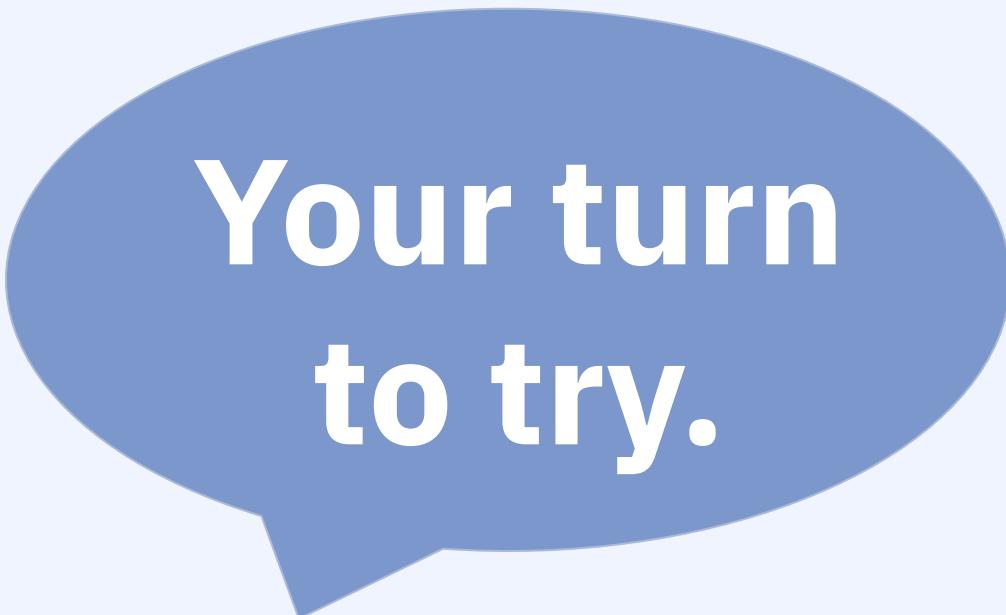
## *Micro Prompt:*

- a) **Specific instructions** : Micro prompting involves providing detailed, step-by-step instructions or constraints to the AI. It narrows down the scope of what the AI should do, addressing each small component of the task.
- b) **Targeted control** : This approach directs the AI to act on specific subtasks, allowing more precise control over the outcome.
- c) **Use case** : This is helpful when you want granular control over how the AI performs the task. For example, "*Create a three-part multiliteracies lesson plan for Kindergarten students that is 30-minutes in length to help develop their phonological awareness. Make this lesson interactive and hands-on and focus on the emergent literacy stages components to inform this lesson.*" is a micro prompt, giving more focused guidance on structure, length, and content.

# Micro Prompting - Practice

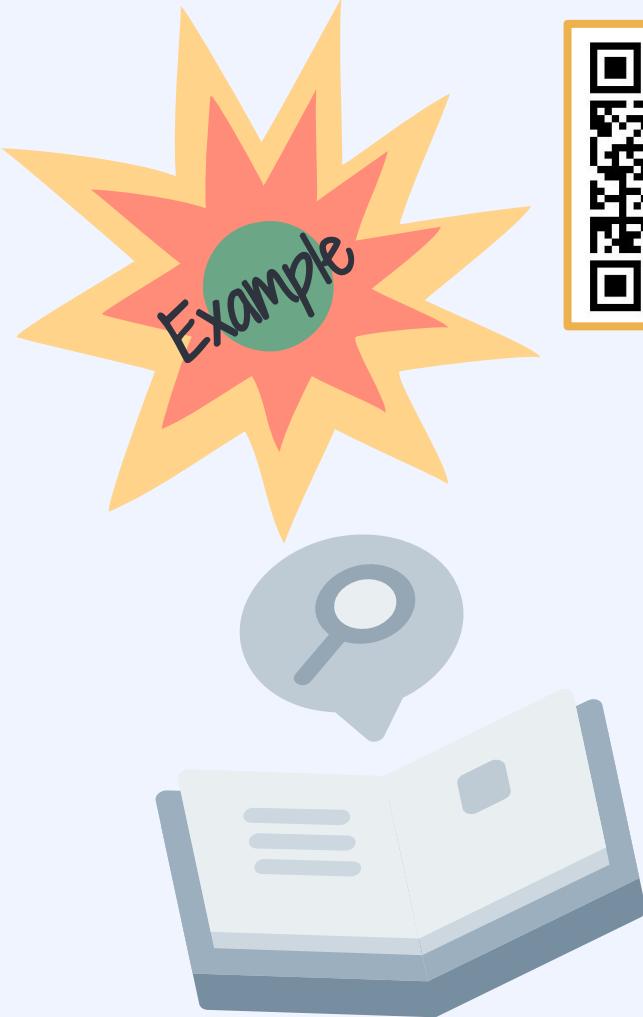
## *Micro Prompt:*

- a) **Specific instructions:** Micro prompting involves providing detailed, step-by-step instructions or constraints to the AI. It narrows down the scope of what the AI should do, addressing each small component of the task.
- b) **Focused regulation:** This approach directs the AI to act on specific subtasks, allowing more precise regulation over the outcome.



Your turn  
to try.





## Micro-Prompting

Create a three-part multiliteracies lesson plan for Kindergarten students that is 30-minutes in length to help develop their phonological awareness. Make this lesson interactive and hands-on and focus use the emergent literacy stages components to inform this lesson.



### Kindergarten Phonological Awareness Lesson Plan

**Length:** 30 minutes

**Focus:** Phonological Awareness (Rhyming, Syllables, Beginning Sounds)

**Emergent Literacy Stages Components:**

- **Pre-Alphabetic Stage** (Understanding that letters and sounds form the building blocks of words)
- **Partial Alphabetic Stage** (Starting to associate letters with sounds, understanding the relationship between sounds and spelling)
- **Full Alphabetic Stage** (Recognizing and manipulating phonemes, rhyming, and syllable words)



## Micro-Prompting

Design a Grade 12 Physics lesson focused on Newton's Third Law of Motion. The lesson should include a clear learning objective, an engaging hands-on activity (e.g., balloon rockets or action-reaction demonstrations), step-by-step instructions, and assessment criteria. Ensure the content aligns with curriculum standards and encourages critical thinking and collaboration among students.

### Grade 12 Physics Lesson Plan: Newton's Third Law of Motion

---

**Lesson Topic:** Newton's Third Law of Motion

**Duration:** 60 minutes

**Grade Level:** 12

**Learning Objective:**

By the end of the lesson, students will be able to:

1. Explain Newton's Third Law of Motion and its application to everyday scenarios.
2. Analyze and demonstrate action-reaction pairs using hands-on activities.
3. Collaborate to design experiments that showcase Newton's Third Law.
4. Evaluate the relationship between force, mass, and acceleration in action-reaction scenarios.



## Sustainability Panel- Graduate Students

### 1. Panelist Selection

To ensure a broad and diverse range of viewpoints, the panel will consist of experts from different but complementary fields related to sustainability:

#### 1. Environmental Policy Expert

Focus: Governmental frameworks, international agreements, and policy implications of sustainability.

#### 2. Economist/Sustainable Development Specialist

Focus: The economic viability of sustainability initiatives, green economies, and financing sustainable development goals (SDGs).

#### 3. Community Leadership/NGO Expert

Focus: Local level initiatives, community-based solutions, equity, and climate justice in marginalized communities.

#### 4. Education/Research Expert

Focus: Integrating sustainability into educational systems, research innovations, and preparing future generations for sustainability challenges.

#### 5. (Optional) Technologist/Innovator

Focus: Technological advancements driving sustainability (e.g., clean energy, sustainable agriculture, circular economy practices).

## Micro-Prompting

Design a structured panel discussion framework for students focused on Sustainable Development. The panel should outline a diverse panel of 4-5 experts from environmental policy, education, economics, and community leadership, ensuring varied perspectives on sustainability challenges and solutions. Identify 3-4 core themes for discussion, such as climate justice, sustainable innovation, partnerships, and educational initiatives. Include a structured agenda that covers the introduction, panelist presentations, Q&A, and audience interaction, with clear time allocation for the moderator's role in guiding the conversation, managing time, and ensuring inclusivity. Describe strategies to foster engagement, such as live polling, breakout discussions, and floor Q&A. Conclude with a focus on desired outcomes, increased awareness, actionable insights, and networking opportunities to promote critical thinking and collaboration among participants.

# Critical Discussion

Compare and contrast the Micro vs.  
Macro prompt output.

What do you notice?  
What are your takeaways?  
What is missing?

# Why Cultural Responsiveness/Sustainability in AI

**Personalized Learning for Diverse Learners**

**Reducing Bias in Curriculum Design, Resources and Assessment**

**Enhances Intersectional and Multilingual Education**

**Supporting Culturally Responsive and Sustaining Pedagogy**

**Bridges the Digital Divide**

**Promotes Social-Emotional Learning**

**Combats Stereotypes in Educational Tools**

**Promoting Equity in Educational Outcomes**

To truly empower modern learners, AI in education must not only teach but also honour the diverse voices, experiences, and identities of every learner, ensuring that technology becomes a bridge to equity and inclusion, not a barrier." (Ewart, 2024)



THE UNIVERSITY OF BRITISH COLUMBIA  
Edith Lando Virtual Learning Centre  
Faculty of Education

# Considerations for Culturally Responsive Micro-Prompting



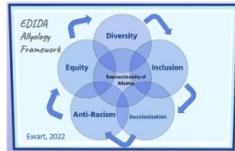
## Considerations for Creating Culturally Responsive Pedagogy

Dr. Keri Ewart- Coordinator EDI, University of British Columbia

Audio Accommodation Scan Below



1. Have I considered my own inherent biases as I approach curriculum, resource selection, content creation, and lesson plan/unit planning?
2. How does my identity shape my thinking, values, and understanding of the world?
3. Have I connected with my students to learn about their existing knowledge, cultural backgrounds, interests, issues of concern, and triggers?
4. How does my identity differ from my students and colleagues? How does it shape my interactions with students, families, and colleagues? How does it shape the design of the lesson/learning activity/assessment?
5. What is the purpose and cultural relevance of what I am teaching?
6. How will my instruction help my students to learn something new about themselves and others? (Including their racial and cultural identities)
7. Is my content representative and responsive to all of my students in the class?
8. How will my instruction help students learn new skills and enhance competencies?
9. How will my instruction help students to learn about anti-oppression and anti-racism?
10. What texts will I layer to support the learning for all of my students? Are these texts written and created by individuals from diverse cultures and communities?
11. How will I make it impossible for students to fail?
12. How will I include multiple narratives in my instruction?

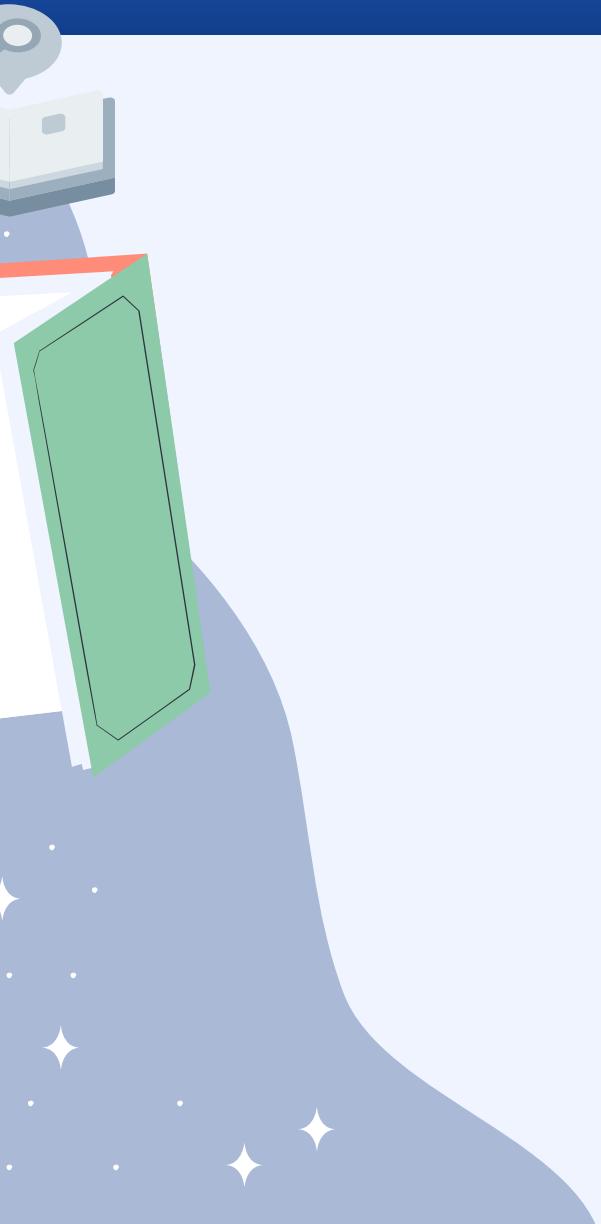


13. How will I ensure that authentic voices are heard and valued?
  14. How will my instruction engage parents, families, and communities?
  15. How will my instruction incite social action to improve communities, society, and the state of humanity?
  16. How am I ensuring that I am not perpetuating stereotypes and reinforcing barriers that produce disparities in student outcomes?
  17. Have I considered the eight competencies for culturally responsive teaching in my planning and design?
- 8 Competencies for Culturally Responsive Teaching**
- 
18. How have I reviewed the content, assignment and/or learning resource for historical accuracy, stereotypes, cultural relevance, and multiple perspectives?
  19. How can the content help my students solve problems in their lives, communities, and the world?
  20. How does the lesson/unit/provocation/challenge/assessment/workshop that I planned, empower my students, and prepare them as critical digital citizens?
  21. How does the instruction challenge the status quo?
  22. How is my content decolonized?
  23. Have I considered all communities (IBPOC, 2SLGBTQIA+, all genders, all abilities/disabilities, neurodivergent individuals, learning types and needs, within my design?)

Any questions or feedback is welcome. Please do not hesitate to reach out to Dr. Keri Ewart ([keri.ewart@ubc.ca](mailto:keri.ewart@ubc.ca))



# CRP Micro Prompting - Practice



Your turn  
to try.

# Example



## CRP Micro-Prompt



### Culturally Responsive Three-Part Multiliteracies Emergent Literacy Lesson Plan

**Grade Level:** Kindergarten

**Duration:** 30 minutes

**Focus Area:** Phonological Awareness Development

**Theme:** Sounds in Our World

**Location Context:** West Vancouver

**Acknowledgement:** "Today, we honor and acknowledge that we are learning on the traditional, ancestral, and unceded territory of the Squamish Nation, Tsleil-Waututh Nation, and Musqueam Nation. We deeply respect and value their histories and cultures."

Create culturally responsive three-part multiliteracies emergent literacy stage lesson plan for Kindergarten students that is 30-minutes in length to help develop their phonological awareness. Make this lesson interactive and hands-on for a group of students from an inner city school in British Columbia with diverse needs, abilities, and backgrounds. Use the considerations for creating culturally responsive learning environments attached for reference. Ensure the lesson plan is representative of West-Vancouver school acknowledging

The Squamish Nation, Tsleil-Waututh Nation, and Musqueam Nation are the Indigenous peoples whose traditional territory includes West Vancouver. The District of West Vancouver acknowledges and respects these nations. Ensure differentiation is apparent to support my students with hearing impairments, speech impairments, and graphomotor impairments

## Kindergarten Example

### Lesson Structure:

#### 1. Warm-Up (5 Minutes): Acknowledging Sounds in Our Environment

- **Activity:** Play a recording of environmental and cultural sounds (e.g., bird chirps, waves crashing).
- Ask students:
  - "What sounds do you hear?"
  - "Can you guess where the sounds might come from?"
- Highlight sounds from West Vancouver's environment, such as waves crashing or birds chirping, that are common to the area.
- **Differentiation:**
  - Students with hearing impairments can feel vibrations from a drum or use visual aids like a sound machine to depict the sound sources.
  - Use sign language or gestures to accompany verbal instructions for clarity.

#### 2. Main Activity (20 Minutes): Interactive Sound Exploration

##### Part A: Sound Identification (8 Minutes)

- Introduce visual cards (e.g., an eagle) alongside corresponding sounds (e.g., eagle call).
- Students match sounds to visuals using a felt board.
- **Differentiation:**
  - Braille-labeled cards for students with visual impairments.
  - Encourage students with speech impairments to point to or select pictures.

##### Part B: Sound-Making with Objects (8 Minutes)

- Hand out sound-making objects (e.g., small drums, shakers).
- Students replicate sounds they heard earlier using the objects.
- Encourage them to take turns creating sounds for the group to identify.
- **Differentiation:**



## CRP Micro-Prompt

### Physics Lesson Plan



Design a Grade 12 Physics lesson focused on Newton's Third Law of Motion with an emphasis on diverse cultural contexts and real-world applications. The lesson should include a clear learning objective, an engaging hands-on activity (e.g., balloon rockets or action-reaction demonstrations using materials or examples from global traditions of innovation and engineering), step-by-step instructions, and assessment criteria. Ensure the content aligns with curriculum standards and encourages critical thinking, collaboration, and cultural inclusivity among students. Consider how different communities apply concepts of motion in their daily lives and innovations, and prompt students to reflect on these diverse perspectives in their discussions and reflections.

#### Grade 12 Physics Lesson Plan: Understanding Newton's Third Law of Motion in Diverse Cultural Contexts

##### Lesson Title:

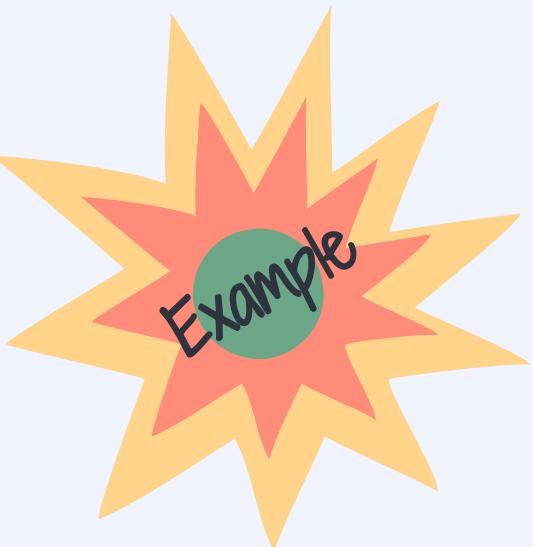
Action and Reaction: Exploring Newton's Third Law Through Innovation and Global Perspectives

---

##### Learning Objective:

By the end of this lesson, students will be able to:

1. **Understand and apply** Newton's Third Law of Motion: For every action, there is an equal and opposite reaction.
2. **Analyze real-world applications** of Newton's Third Law, particularly in various cultural contexts, and understand how different societies have used this principle in engineering and daily life.
3. **Design and conduct an experiment** that demonstrates the concept of action and



Example



## CRP Micro-Prompt



### Graduate Students-Sustainability Panel

Design a structured panel discussion framework for graduate students focused on Sustainable Development that emphasizes cultural responsiveness and inclusivity. Ensure the panel represents diverse voices by including 4-5 experts with varied cultural backgrounds, lived experiences, and fields of expertise, such as Indigenous knowledge keepers, environmental policy leaders, educators, economists, and community advocates. Identify 3-4 core themes that reflect global and local perspectives on sustainability, such as climate justice, Indigenous land stewardship, equitable access to resources, sustainable innovation, and educational initiatives that uplift marginalized communities. Structure the session to include an introduction that acknowledges the land and diverse knowledge systems, panelist presentations, a moderated Q&A, and audience interaction, with clear time allocations and multilingual support if needed. Clearly define the moderator's role in guiding conversations equitably, managing time, and ensuring that all voices, particularly those from underrepresented groups, are heard and valued. Describe audience engagement strategies that encourage meaningful participation, such as story sharing, live polling with culturally responsive questions, small group discussions, or interactive digital tools. Conclude with a focus on outcomes that prioritize collective learning, actionable insights, and capacity-building, emphasizing a commitment to global equity, collaboration, and cultural humility in sustainability practices.



#### Panel Discussion Framework: Sustainable Development through Cultural Responsiveness and Inclusivity

##### Objective:

To create a dynamic, inclusive, and culturally responsive dialogue around sustainable development, fostering global and local perspectives, with an emphasis on equity, cultural humility, and actionable insights.

##### Panel Theme:

"Sustainable Futures: Integrating Diverse Knowledge Systems for Global Equity"

# Critical Discussion

Compare and contrast the Micro vs.  
CRP Micro-prompt output.

What do you notice?  
What are your takeaways?  
What is missing?

# Culturally Responsive Considerations with Contextualized AI

## Step 1 Learner Background:

- Can you tell me about the audience you aim to reach with these culturally responsive resources? (e.g., age group, grade level, specific cultural backgrounds)

## Step 2 Cultural Relevance:

- Can you provide examples of the cultural backgrounds and experiences that should be reflected in the learning resources?
- Are there particular cultural practices, traditions, or sensitivities that should be highlighted?

## Step 3 Educational Goals:

- Is there a specific curriculum resource that should be used to create this learning resources?

## Step 4 Resource Types:

- What types of learning resources are you considering? (e.g., lesson plans, multimedia content, interactive activities)

# Culturally Responsive Considerations with Contextualized AI

## Step 5 Create Initial Draft:

- Refer back to the response provided in steps 1 through 5 and use this information to create a draft of the learning resources. After you have provided the draft you will ask them if there is anything they would like to change and then make the revisions they request.

## Step 6 Challenges and Considerations:

- What challenges do you anticipate in creating or implementing these resources?
- Are there any specific considerations or sensitivities that need to be addressed to ensure the resources are respectful and inclusive?

## Step 7 Collaboration and Input:

- Have you considered how to involve students, families, and the community in the development of these culturally responsive resources?
- Are there any key stakeholders or experts you can collaborate with to ensure the accuracy and relevance of the content?

## Step 8 Evaluation and Improvement:

- How do you plan to assess the effectiveness of culturally responsive resources in your educational setting?
- What methods do you plan to use to gather feedback and make continuous improvements?



# Culturally Responsive Considerations with Contextualized AI



## Culturally Responsive Learning Guide



By community builder ☰

Guide for anti-racist, culturally responsive, and indigenizing education in Canada.

Can you help me  
to create culturally  
responsive...

How can I  
decolonize  
my curriculum?

How do I  
create an anti-  
racist classroom...

How can I ensure  
that the learning  
resources I creat...



# Create- Critical Examination of Text Sets

**Create Your Own Text Set to Support Culturally Relevant Pedagogy**



**Interrogate**



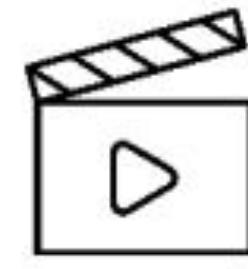
**Identify**



**Build**



**Plan**



**Use**



**Reflect**

**Redefining your assessments, slides, research, lesson planning, etc. through your use of AI**

Upload your ideas, current plans, workshop notes, etc to the AI and prompt it to enhance the culturally responsiveness of the resource.

# Directions: Culturally Responsive Teaching Resources



## Knowledge

If you upload files under Knowledge, conversations with your GPT may include file contents. Files can be downloaded when Code Interpreter is enabled



**EDIDA glossary.docx**  
Document



**Authentic first Peoples Re...**  
PDF



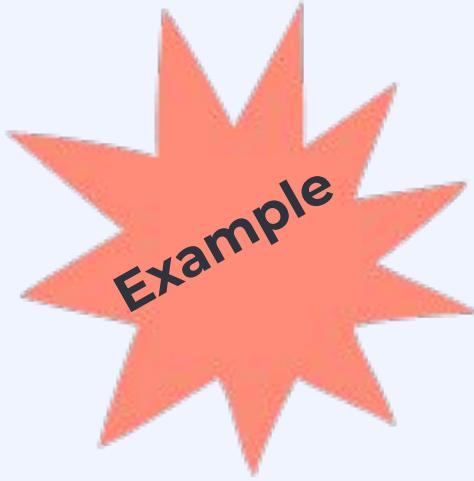
**Authentic First Peoples R...**  
PDF



**makingSpace\_full.pdf**  
PDF

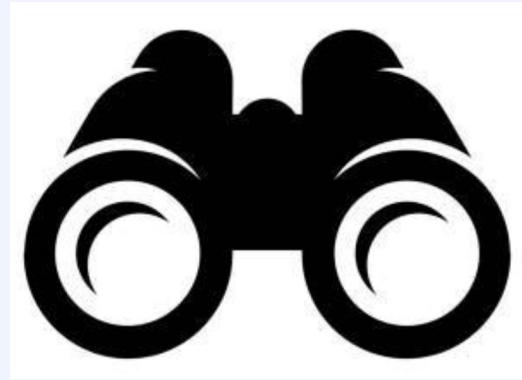


# Please post your CRP-Contextualized Micro-Prompt example in the Padlet linked below



A screenshot of a Padlet board titled "CRP Contextualized AI Generated Lesson Plan". The board has one pinned item from "Keri Ewart • 1m" with the instruction "Please post your CRP-Contextualized Micro-Prompt example to the Padlet here." Below the board is a large, semi-transparent graphic of a diverse crowd of people's heads in various shades of purple. To the right of the Padlet is a QR code.

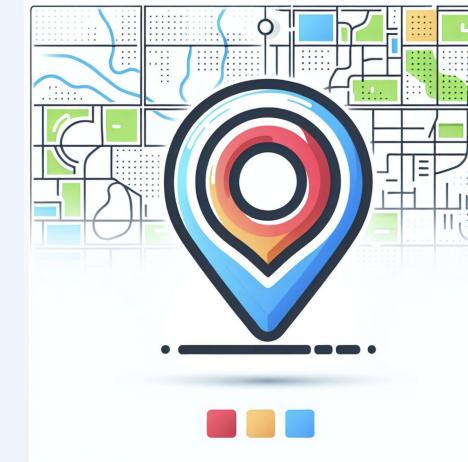
# CRT AI Continuum



Macro-Prompting



Micro-Prompting



CRT Micro-Prompting



Contextualized CRT  
Micro-Prompting

How might you use CRP-focused AI in your own **context**

Keri • 1m

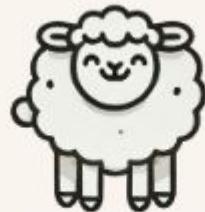
**What are your takeaways from this session? What did you notice when you used the culturally responsive-created AI tool?**



# Questions



# AI Tools for Consideration



SHEEPSCRIPT.AI

Video or Podcast to  
Social Media Post

 gradescope<sup>®</sup>  
by Turnitin

Streamline the assessment  
process with feedback,  
which is differentiated and  
personalized.

 NotebookLM



Notes, presentations, and  
research to Podcasts

**twee**

Generate lesson plans, provide  
feedback and support diverse  
assessments.

**QUIZIZZ** CA

Interactive quiz and assessment  
platform that enables gamified  
learning through customizable  
quizzes, polls, and lessons.



**GMind AI**

Content generation,  
research assistance, and  
workflow optimization.  
Multilingual support.



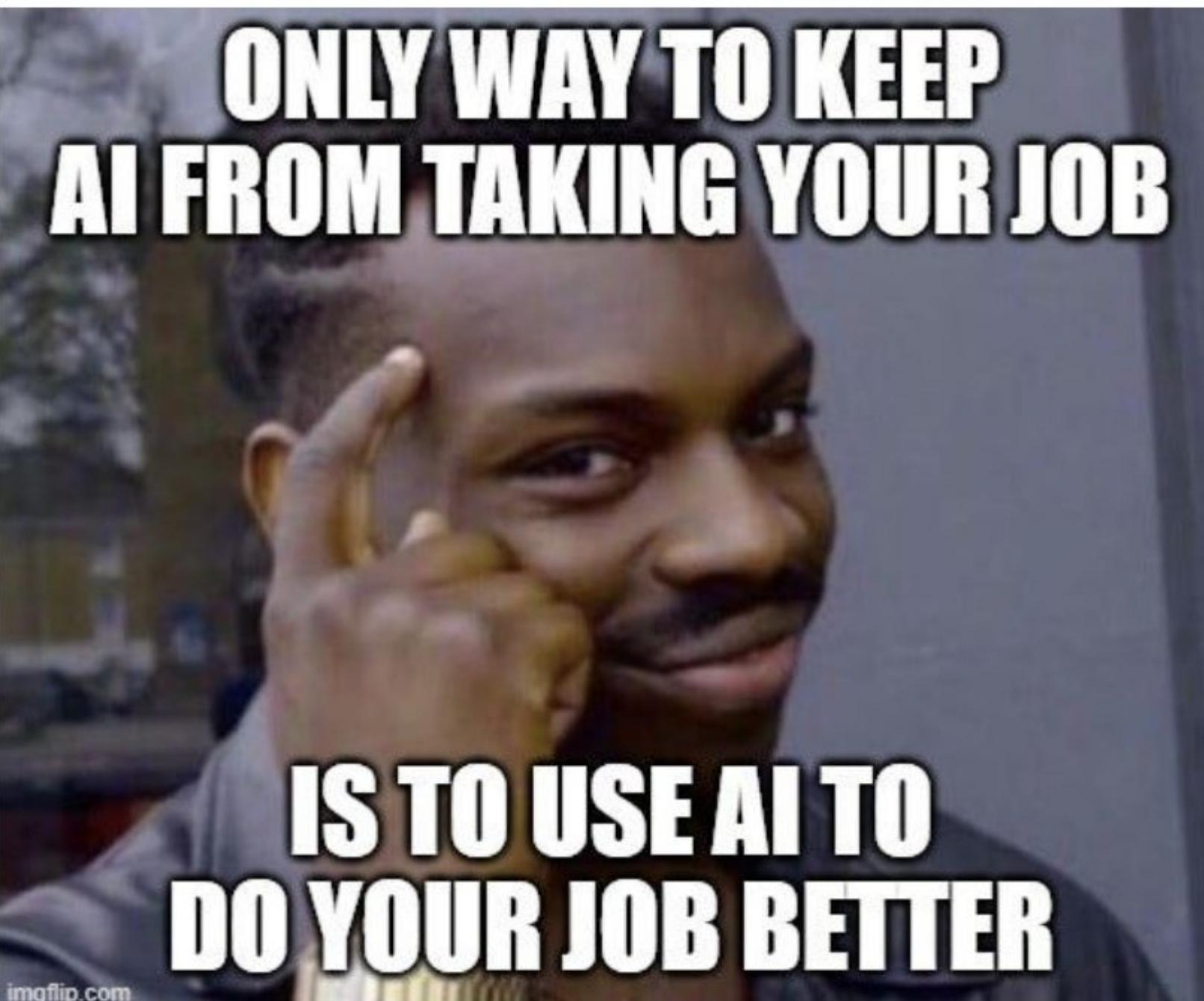
**Eduaide.Ai**

Lesson plan and activity generation



**SEMANTIC SCHOLAR**

Research article focused search engine



**ONLY WAY TO KEEP  
AI FROM TAKING YOUR JOB**

**IS TO USE AI TO  
DO YOUR JOB BETTER**

# AI in Education Post Survey



<http://bit.ly/4050dWH>