

# Recommended AI Practices for Students, Teachers, and Administrators

This document is intended to support Pennsylvania’s adult education staff as they consider the impact of artificial intelligence (AI) on their work. The practices described below are aligned with the [Department of Labor’s Artificial Intelligence Literacy Framework](#) and seek to help practitioners apply that framework in practical ways within their work.

The numbered headings (e.g., 1. Understand AI Principles) correspond with the content areas in the Department of Labor’s framework. Under each heading, key concepts provide context for the practices related to the content listed in the table below it. Each row of the table contains a core practice listed in the student column that can be taught to learners. The two adjacent columns describe how teachers and the program’s administrator and/or professional development (PD) team may apply that practice in various aspects of their work. For teachers, these applications may include instruction, lesson planning, and classroom management. Examples for administrators and program PD teams may include staff training, policy or process development, and the selection or purchase of AI tools and resources. As the field of AI continues to rapidly evolve, readers are encouraged to thoughtfully consider how these principles apply to their own context and the current capabilities and limitations of AI technology.

## 1. Understand AI Principles

**Key Concept:** AI responses are generated from patterns in training data rather than true understanding. Humans provide AI with training data, which is often, but not always, available online. Different AI tools are good for different purposes because of the training data and programming that humans use when creating them. AI and Generative AI (GenAI) operate differently; AI tools are usually single-purpose and produce a specific type of response, while GenAI tools can create new content, including text, images, and video.

Topic	Students	Teachers	Administrators / PD Team
a) Importance of human judgment	Describe how human judgment is crucial, including the role of humans in training and directing AI, verifying output, and choosing when to use or modify the output of an AI tool.	<p>Teach students that human judgment is crucial. Explain the role of humans in training and directing AI, verifying output, and choosing when to use or modify the output of an AI tool.</p> <p>Develop processes that integrate human judgment when using AI to help complete tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training which emphasizes how crucial human judgment is, including the role of humans in training and directing AI, verifying output, and choosing when to use or modify the output of an AI tool. Discuss strategies for teaching these concepts to students.</p> <p>Support staff to develop processes that integrate human judgment when using AI to help complete work-related tasks.</p>

## 1. Understand AI Principles (continued)

Topic	Students	Teachers	Administrators / PD Team
<p>b) Selecting appropriate AI tools and modes</p>	<p>Explain the differences between some common AI and GenAI tools, including different modes and settings that may be available in each, and describe how to choose the tool and mode/settings most appropriate for completing a task.</p>	<p>Teach students the differences between some common AI and GenAI tools and describe how to choose the tool and mode/settings most appropriate for completing a task.</p> <p>Thoughtfully select appropriate tools and modes when using AI and/or GenAI to complete tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training around the differences between some common AI and GenAI tools and describe how to choose the tool and mode/settings most appropriate for completing a task. Discuss strategies for teaching these concepts to students.</p> <p>Provide guidance for staff regarding which tools and/or modes to use for specific tasks or task types.</p> <p>Consider the modes and settings available in AI and GenAI tools when selecting tools to recommend or purchase.</p>

## 1. Understand AI Principles (continued)

Topic	Students	Teachers	Administrators / PD Team
c) How AI uses training data	Describe how AI uses training data to produce responses and explain why using the same prompt more than once will produce a variety of responses.	<p>Teach students how AI uses training data to produce responses and why using the same prompt more than once will produce a variety of responses.</p> <p>Distinguish between tools that use general training data versus program-specific data (if available) when choosing an AI tool for a task related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training explaining how AI uses training data to produce responses and why using the same prompt more than once will produce a variety of responses. Discuss strategies for teaching these concepts to students.</p> <p>Provide and follow program guidelines regarding when to use tools that have access to program-specific data (if available).</p> <p>Distinguish between tools that use general training data and those that use program-specific data when purchasing AI tools.</p>
d) Capabilities of AI	Name some common capabilities of GenAI, such as generating text, analyzing data, and creating images. Identify tasks that would be an effective and appropriate use of GenAI.	<p>Teach students about the capabilities of GenAI and how to identify tasks that would be an effective and appropriate use of GenAI.</p> <p>Identify when it would be appropriate and effective to use GenAI to complete tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training around the capabilities of GenAI and how to identify tasks that would be an effective and appropriate use of GenAI. Discuss strategies for teaching these concepts to students.</p> <p>Provide and follow program guidelines regarding tasks where GenAI assistance is preferred, permitted, or not permitted.</p>

## 2. Explore AI Uses

**Key Concept:** Ultimately, humans are responsible for deciding how and when to use AI. AI cannot replace human expertise and judgment or the process of learning, but it can be a useful tool to support and augment human abilities.

Topic	Students	Teachers	Administrators / PD Team
a) Possible roles for AI	<p>Determine possible roles for humans and AI in tasks such as:</p> <ul style="list-style-type: none"> <li>• Brainstorming or clarifying ideas</li> <li>• Getting feedback</li> <li>• Summarizing or releveling text</li> <li>• Translating or transcribing text or speech</li> <li>• Researching a topic</li> <li>• Writing, proofreading, and editing tasks of various types</li> </ul>	<p>Teach students some possible roles of humans and AI in a variety of tasks, including those listed in the Students column, and especially those where using AI will help students achieve a goal more effectively and/or efficiently.</p> <p>Consider AI as a potential accessibility tool for students in class and daily life tasks.</p> <p>Thoughtfully identify possible roles for humans and AI in tasks related to instruction, lesson planning, and/or classroom management, such as:</p> <ul style="list-style-type: none"> <li>• Brainstorming lesson and activity ideas</li> <li>• Creating instructional materials</li> <li>• Illustrating concepts</li> <li>• Communicating with students</li> <li>• Drafting reports</li> </ul>	<p>Support staff training around the possible roles of humans and AI in a variety of tasks, including those in the Students and Teachers columns, and especially those where using AI will help students or teachers achieve a goal more effectively and/or efficiently. Discuss strategies for teaching these concepts to students.</p> <p>Consider AI as a potential accessibility tool for students and staff in various roles.</p> <p>Provide guidance for staff in considering possible roles for humans and AI in work-related tasks.</p> <p>Thoughtfully identify possible roles for humans and AI in tasks related to supervision and administration, such as:</p> <ul style="list-style-type: none"> <li>• Creating rubrics, templates, and outlines</li> <li>• Taking notes in meetings</li> <li>• Drafting reports</li> <li>• Doing research</li> <li>• Creating publicity materials</li> </ul> <p>Consider the potential roles for humans and AI when recommending or purchasing AI tools.</p>

## 2. Explore AI Uses (continued)

Topic	Students	Teachers	Administrators / PD Team
b) Effective and ineffective uses of AI	Identify when using AI will help achieve a goal more effectively and/or efficiently and when it will be ineffective, counterproductive, or harmful.	<p>Teach students to identify when using AI will help achieve a goal more effectively and/or efficiently and when it will be ineffective, counterproductive, or harmful.</p> <p>Consider when using AI for tasks related to instruction, lesson planning, and/or classroom management will help achieve a goal more effectively and/or efficiently and when it will be ineffective, counterproductive, or harmful.</p>	<p>Support staff training to identify when using AI will help achieve a goal more effectively and/or efficiently and when it will be ineffective, counterproductive, against organizational policy, or harmful. Discuss strategies for teaching these concepts to students.</p> <p>Consider when using AI for tasks related to supervision and administration will help achieve a goal more effectively and/or efficiently and when it will be ineffective, counterproductive, against organizational policy, or harmful.</p> <p>Consider whether AI will be an appropriate tool for a particular task when recommending or purchasing AI tools.</p>

## 2. Explore AI Uses (continued)

Topic	Students	Teachers	Administrators / PD Team
c) AI effects on learning	Identify times when relying on AI interferes with learning and times when AI can support the learning process.	<p>Teach students that AI cannot replace practice or the learning process and help them identify when using AI interferes with or supports learning.</p> <p>Identify skills related to instruction and lesson planning that the teacher is intentionally building and adjust AI use to support, rather than inhibit, skill development.</p>	<p>Support staff training that makes clear that AI cannot replace practice or the learning process and support staff to identify when AI interferes with or supports learning for themselves and their students. Discuss strategies for teaching these concepts to students.</p> <p>Provide and follow program guidelines around uses of AI that support or inhibit skill development for staff and students.</p> <p>Consider the potential for AI use to support or inhibit learning and skill development in staff and students when recommending or purchasing AI tools.</p>

### 3. Direct AI Effectively

**Key Concept:** The quality of the AI’s output is determined by the human’s choices when prompting it.

Topic	Students	Teachers	Administrators / PD Team
a) Strategies for effective prompting	<p>Use strategies for effective prompting of GenAI tools, including:</p> <ul style="list-style-type: none"> <li>• Clearly stating the goal</li> <li>• Providing background information</li> <li>• Identifying the author and the audience</li> <li>• Including the most relevant data and examples</li> <li>• The style of the response</li> <li>• Parameters for the response</li> <li>• Breaking tasks into steps</li> <li>• Providing feedback on output and requesting revisions</li> <li>• Requesting sources or explanations</li> </ul> <p>Select and refine strategies based on the task, tool, and previous output.</p>	<p>Teach students strategies for effective prompting of GenAI tools, including those listed in the Students column. Guide them in selecting and refining strategies based on the task, tool, and previous output.</p> <p>Use strategies for effective prompting when using GenAI for tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training on strategies for effective prompting of GenAI tools, including those listed in the Students column. Guide them in selecting and refining strategies based on the task, tool, and previous output, and discuss strategies for teaching these skills to students.</p> <p>Provide guidance on effective prompting by developing shared prompting examples and guidance for staff.</p> <p>Use effective prompting strategies for tasks related to program administration.</p>

### 3. Direct AI Effectively (continued)

Topic	Students	Teachers	Administrators / PD Team
<p>b) Using AI as a tutor or coach</p>	<p>When using a GenAI tool as a tutor, choose the most appropriate tool, mode, and setting and use prompts that will help improve skill/understanding, including asking for feedback, explanations, and/or examples, rather than focusing on task completion.</p>	<p>Teach students to use a GenAI tool as a tutor by choosing an appropriate tool, mode, and setting and using prompts that will help improve skill/understanding, including asking for feedback, explanations, and/or examples, rather than focusing on task completion.</p> <p>Develop effective prompts for getting coaching or feedback on materials or ideas related to instruction, lesson planning, and/or classroom management, and use appropriate GenAI tools and modes/settings for this purpose.</p>	<p>Support staff training in strategies for selecting and using GenAI tools for coaching or tutoring, including choosing the most appropriate tool, mode, and setting and using prompts that will help improve skill/understanding. Discuss strategies for teaching these skills to students.</p> <p>Develop effective prompts for getting coaching or feedback on materials or ideas related to program administration and use appropriate GenAI tools and modes/settings for this purpose.</p> <p>Consider whether a GenAI tool can or should be used as a tutor or coach when recommending or purchasing it.</p>

## 4. Evaluate AI Outputs

**Key Concept:** Humans are accountable for the products they create using AI.

Topic	Students	Teachers	Administrators / PD Team
a) Checking accuracy and reliability of AI outputs	Check AI outputs using trusted sources for issues around accuracy and reliability, including: <ul style="list-style-type: none"> <li>• Inaccurate or misleading statements</li> <li>• Outdated references</li> <li>• Bias</li> <li>• Flawed logic or faulty assumptions</li> <li>• Fictitious, irrelevant, or misquoted sources</li> </ul>	Teach students how to check AI outputs using trusted sources for issues around accuracy and reliability, including the items listed in the Students column.  Check AI outputs for accuracy and bias before using materials or sharing them with students or colleagues.  Verify sources when using AI for research; cross-check sources to verify important information.	Support staff training on checking AI outputs using trusted sources for issues around accuracy and reliability, including the items listed in the Students column. Discuss strategies for teaching these concepts to students.  Check AI outputs for accuracy and bias before using materials or sharing them with students, colleagues, or partners.  Verify sources when using AI for research; cross-check sources to verify important information.
b) Criteria for evaluating AI outputs	Evaluate AI outputs based on whether they achieve the desired goal, fully answer the question or task, and are fit for a specific purpose and/or audience.	Teach students to evaluate AI outputs based on whether they achieve the desired goal, fully answer the question or task, and are fit for a specific purpose and/or audience.  Evaluate GenAI outputs related to instruction, lesson planning, and/or classroom management for whether they achieve the desired goal, support the right message, and are fit for a specific purpose and/or audience.	Support staff training on evaluating AI-generated outputs based on whether they achieve the desired goal, fully answer the question or task, and are fit for a specific purpose and/or audience, and discuss strategies for teaching these concepts to students.  Evaluate GenAI outputs related to program management for whether they achieve the desired goal, support the right message, and are fit for a specific purpose and/or audience.

#### 4. Evaluate AI Outputs (continued)

Topic	Students	Teachers	Administrators / PD Team
c) AI sycophancy	Recognize that chatbots often default to agreement rather than correction.	<p>Teach students that chatbots often default to agreement rather than correction.</p> <p>Consider the limitations of chatbots before assigning them for use by students.</p> <p>Take into consideration that chatbots often default to agreement rather than correction when using GenAI to evaluate or comment on materials or ideas related to instruction, lesson planning, and/or classroom management, and consider compensating by seeking opinions from peers, adjusting prompts, or providing objective measurement tools like rubrics.</p>	<p>Support staff training about recognizing the limitations of chatbots and determining if/how to use them in the classroom. Discuss strategies for teaching these concepts to students.</p> <p>Take into consideration that chatbots often default to agreement rather than correction when using GenAI to evaluate or comment on materials or ideas related to program administration, and consider compensating by seeking opinions from peers, adjusting prompts, or providing objective measurement tools like rubrics.</p>

#### 4. Evaluate AI Outputs (continued)

Topic	Students	Teachers	Administrators / PD Team
d) Strategies for correcting faulty AI output	Identify when there are issues with AI output and fix them by prompting AI, changing the product manually, or using some other strategy.	<p>Teach students how to decide when there are issues with AI output and fix them by prompting the AI, changing the product manually, or by using some other strategy.</p> <p>Identify when there are issues with AI output for tasks related to instruction, lesson planning, and/or classroom management and use appropriate strategies to fix them.</p>	<p>Support staff training around identifying issues with AI output and using appropriate strategies to fix them. Discuss strategies for teaching these concepts to students.</p> <p>Identify when there are issues with AI output for tasks related to program administration and use appropriate strategies to fix them.</p> <p>Consider the relative ease of fixing problems with output when recommending or purchasing AI tools.</p>

## 5. Use AI Responsibly

**Key Concept:** Humans are responsible for making responsible, ethical choices about when and how to use AI to accomplish or assist with a task. It is not always safe to share sensitive or identifying information with an AI tool.

Topic	Students	Teachers	Administrators / PD Team
a) Sensitive information and safe AI use	Describe the risks of entering sensitive or identifying information into an AI tool and give examples of safe and unsafe prompts.	<p>Teach students about the risks of entering sensitive or identifying information into an AI tool and give examples of safe and unsafe prompts.</p> <p>Avoid entering sensitive or identifying information into AI tools and follow program data policies when using AI for tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training about the risks of entering sensitive or identifying information into an AI tool and provide resources with examples of safe and unsafe prompts. Discuss strategies for teaching these concepts to students.</p> <p>Provide and follow program guidelines about what data may and may not be entered into AI tools.</p> <p>Consider what an AI tool does with confidential data it retains that may accidentally be entered into the system when recommending or purchasing AI tools.</p>

## 5. Use AI Responsibly (continued)

Topic	Students	Teachers	Administrators / PD Team
<p>b) AI data policies and practices</p>	<p>Use the data policy of an AI tool to inform a decision about whether to use that tool for a particular purpose.</p> <p>Opt out of using an AI tool or having data entered into the tool when uncomfortable with its data collection practices.</p>	<p>Teach students to consider AI tool data policies before using them in class.</p> <p>Inform students about data collection practices and allow students to opt out of using an AI tool or having their data entered into the tool if they are uncomfortable with its data collection practices.</p> <p>Distinguish between AI tools that store data securely within the organization and those that do not and adjust the information given to the AI tool accordingly when using it for tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training around AI tool data policies, distinguishing between AI tools that store data securely within the organization and those that do not. Discuss strategies for teaching these concepts to students.</p> <p>Allow staff and students to opt out of using an AI tool or having their data entered into the tool if they are uncomfortable with its data collection practices.</p> <p>Provide and follow program and state and federal guidelines about entering sensitive or identifying information into AI systems, distinguishing between AI tools that store data securely within the organization and those that do not.</p> <p>Review data policies and conduct risk assessments before recommending or purchasing AI tools.</p>

## 5. Use AI Responsibly (continued)

Topic	Students	Teachers	Administrators / PD Team
c) Following organizational AI guidelines	Follow organizational/classroom AI guidelines and remain accountable for work produced with AI assistance.	<p>Communicate organizational/classroom AI guidelines to students and hold them accountable for work produced with AI assistance.</p> <p>Follow program guidelines when using AI for tasks related to instruction, lesson planning, and/or classroom management, and remain accountable for work produced with AI assistance.</p>	<p>Support staff training around program AI use guidelines and accountability. Discuss strategies for teaching these concepts to students.</p> <p>Provide and follow program guidelines around acceptable use of AI tools and accountability for AI content.</p>

## 5. Use AI Responsibly (continued)

Topic	Students	Teachers	Administrators / PD Team
d) Avoiding AI misuse	<p>Follow classroom/program policies on AI misuse. Be aware of how AI tools can be used inappropriately, including for plagiarism, impersonation, or harm and consequences for misuse.</p>	<p>Communicate classroom/program policies on AI misuse to students and inform students how tools can be used inappropriately, including for plagiarism, impersonation, or harm.</p> <p>Report suspected AI misuse. Describe the pitfalls of AI detection tools and never rely on tools alone to determine if students used AI to complete an assignment.</p> <p>Develop assignments and activities that AI cannot successfully complete and use them thoughtfully.</p> <p>Follow program policies on AI misuse when using AI for tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training on:</p> <ul style="list-style-type: none"> <li>• Program policies concerning AI misuse for learners and for staff</li> <li>• Ways AI can be used inappropriately, including plagiarism, impersonation, or harm</li> <li>• Pitfalls of AI detection tools and appropriate ways to respond to suspected use of AI in student work</li> <li>• Developing assignments and activities that cannot be successfully completed by AI and considering when they should be used</li> </ul> <p>Discuss strategies for teaching these concepts to students.</p> <p>Provide and follow program guidelines around AI misuse by staff or students and the use of AI detection tools, including reporting processes for staff and students.</p> <p>Consider the potential for misuse when recommending or purchasing AI tools.</p>

## 5. Use AI Responsibly (continued)

Topic	Students	Teachers	Administrators / PD Team
e) Citing AI use	Cite AI use appropriately.	<p>Teach students to cite AI appropriately and require them to follow classroom policy.</p> <p>Model AI citation and disclosure when using AI-generated materials with students.</p> <p>Follow program guidelines around citation when using AI for tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training around appropriate AI citation. Discuss strategies for teaching these concepts to students.</p> <p>Provide and follow program and classroom guidelines around appropriate AI citation.</p>
f) Environmental impact	<p>Describe the environmental impact of AI and explain ways to reduce it, including:</p> <ul style="list-style-type: none"> <li>• Using alternative tools</li> <li>• Using AI for part of a process</li> <li>• Making corrections manually rather than trying to correct AI outputs with prompting</li> <li>• Reusing AI-generated material rather than regenerating similar products repeatedly</li> </ul>	<p>Teach students about the environmental impact of AI and discuss strategies for reducing its footprint and for deciding whether AI is the right tool for the job, including those noted in the Students column.</p> <p>Attempt to balance efficiency with environmental impact when using AI for tasks related to instruction, lesson planning, and/or classroom management.</p>	<p>Support staff training around the environmental impact of AI and strategies for reducing its footprint and deciding whether AI is the right tool for the job, including those noted in the Students column. Discuss strategies for teaching these concepts to students.</p> <p>Consider environmental impact when recommending or purchasing AI tools.</p> <p>Attempt to balance efficiency with environmental impact when using AI for tasks related to program administration.</p>

## Resources

*AI Integration Framework*. Workforce EdTech. (2025, August 18). <https://workforceedtech.org/ai-integration-framework/>

The Department of Labor’s Artificial Intelligence Literacy Framework. (2026, February 13). <https://www.dol.gov/sites/dolgov/files/ETA/advisories/TEN/2025/TEN%2007-25/TEN%2007-25%20%28complete%20document%29.pdf>