AI: Another and Another and Another Iteration

Please note that this micro-credential can only be completed if your students can use Generative AI to create multimodal projects.

Competency

Learners test AI tools that operate in different formats (text, images, music, etc.) to explore and refine new ideas. They combine outputs into a meaningful product or solution.

Key Method

The educator designs experiences where AI supports iteration and revision rather than producing final work. The educator models and guides the iterative process by understanding their students' developmental needs and pedagogical approaches. The educator helps students learn how to evaluate AI outputs, make informed decisions, and refine their thinking over multiple drafts.

Method Components

Purposeful Iteration in Learning

Iteration is already part of teaching. For example, teachers almost always ask students to draft a written response, receive feedback, and revise it for clarity, accuracy, or improvement before submitting a final version. We know that learning happens through revising and accepting growth from feedback. Students learn when they rethink ideas, adjust their language, and deepen their understanding.

AI tools can support this same process. For example, a student will draft their writing independently and then use AI to receive feedback, request alternative explanations, or identify areas for clarity. The student compares this feedback to their own thinking and revises their work based on what strengthens learning and output. The student, not the tool, decides what to change.

Model How Students Use AI for Feedback and Revision

When students see AI modeled and discussed as a tool for feedback and revision, rather than as a source for final drafts, they learn that their own thinking, writing, and decision-making remain at the center of their use of AI.

For example, a teacher may demonstrate how a student can request feedback on clarity and organization from an AI tool for a written draft. The student then uses that feedback to support the revision process. The teacher emphasizes that AI feedback should be considered alongside rubric criteria, peer comments, and teacher guidance, underscoring that it is only one input.

The most important skill students practice in this process is evaluating and applying AI feedback. Students use critical thinking to determine which suggestions are useful, which are inaccurate or irrelevant, and how to revise their work. This type of evaluation represents high-level learning and requires explicit instruction and repeated practice. Reflection after the revision process is also an essential part of this learning, helping students understand not only what changed but also why.

As noted, AI feedback should not determine final revisions. Instead, it becomes one more source of information that students learn to weigh and question. Through modeling and conversation, teachers reinforce expectations for original work and make clear that students remain responsible for all final decisions and products.

Using AI Across Modalities

Before students use AI, it is crucial to set clear classroom expectations and ensure students understand how to use AI tools. When expectations for authorship, revision, and responsibility are clear, AI tools more effectively support iterative learning.

Once the teacher has established expectations for AI use, they can use those expectations across different modalities. The goal is not to introduce as many formats as possible, but to choose modalities that align with instructional goals and help students communicate their thinking more effectively.

Here's an example of a multimodal application: A student might use AI feedback to revise a written explanation. and then adapt the explanation into a visual or audio

format. The student remains responsible for the content while using AI to enhance clarity, organization, or accessibility.

Using various modalities can help students see how ideas transfer across formats and audiences. It can also provide alternative ways for students to demonstrate understanding, especially when revising work. The emphasis remains on the learning process rather than on the tool or format itself.

An essential key to effective student iteration with AI is the teacher's intentional guidance. Decisions about when to introduce a new modality, when to stay with a single format, or when AI adds value are based on knowledge of students, learning objectives, and available supports. This ensures that the use of modalities strengthens learning rather than adding unnecessary complexity. As in all instructional planning, decisions about modality use begin with students, learning goals, and standards. Only then consider how AI tools may support the work.

Teacher Guidance, Judgment, and Boundaries

While AI tools can provide feedback or suggestions, teachers provide the context students need to interpret that information thoughtfully. Decisions about when to use AI, how to frame prompts, and when to pause or redirect are instructional choices grounded in knowledge of students and learning goals.

Teachers help students understand that not all feedback, human or automated, should be accepted at face value. Modeling how to question suggestions, compare them to criteria, and recognize limitations reinforces critical thinking and keeps students actively engaged in the learning process. This guidance helps prevent overreliance on AI and supports students in developing confidence in their own judgment.

Clear boundaries are also essential to this work. Teachers set expectations for originality, appropriate use, and responsible decision-making, and revisit those expectations as students gain experience with AI tools. These boundaries are not about restricting learning; they are about protecting it. The goal is to make sure AI use supports growth, reflection, and revision rather than shortcuts or surface-level completion.

Throughout the process, teachers draw on their understanding of students' developmental levels, academic readiness, and individual needs. This professional judgment allows teachers to decide when AI feedback is helpful, when peer or teacher feedback is more appropriate, and when students need additional support or challenge. AI tools cannot replace this knowledge; teachers rely on it.

Supporting Rationale and Research

AI4MI Initiative. (n.d.). *AI4MI instructional framework guide* (Rev. 9/22/25)**.** https://cdn.prod.website-files.com/686b49a91a139a4402cfbc37/68e90c4020dff9b72167d5d2_AI4MI%20Instructional%20Framework%20Guide%20%28rev%209_22_25%29.pdf

CAST (2024). Universal Design for Learning Guidelines version 3.0. Retrieved from https://udlguidelines.cast.org

Robertson, J., Ferreira, C., Botha, E., & Oosthuizen, K. (2024). *Game changers: A generative AI prompt protocol to enhance human-AI knowledge co-construction*. *Business Horizons*, 67(5), 499–510. https://doi.org/10.1016/j.bushor.2024.04.008

Mollick, E. (2023). *An opinionated guide to using AI.* One Useful Thing. https://www.oneusefulthing.org/p/an-opinionated-guide-to-using-ai

Rose, D. H., & Meyer, A. (2002). Teaching every student in the digital age: Universal learning design. Alexandria, VA: Association for Supervision and Curriculum Development.

UNESCO. (2023). *Guidance for generative AI in education and research*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000386693

UNESCO. (2024). *AI Competency Framework for Teachers*. https://unesdoc.unesco.org/ark:/48223/pf0000391104

Vinay, A., Spitale, Giovanni, G., Biller-Andorno, N., & Germani, Federico, F. (2025). Emotional prompting amplifies disinformation generation in AI large language models. Frontiers in Artificial Intelligence, Volume 8. Sec. Medicine and Public Health. https://www.frontiersin.org/journals/artificial-intelligence/articles/10.3389/frai.2025.1543603/full

Resources

AI Support for Educators

Microsoft Elevate for Educators

Accessibility and Inclusive Use of AI Tools

Accessibility Tools for Inclusive Learning | Microsoft Education

AI Literacy and Foundational Concepts

AI Glossary of Terms

Common Sense Education – AI Literacy & Bias Resources

Digital Education Council AI Literacy Framework

Empowering Educators in the Age of AI | NEA

Getting started with prompts for text-based Generative AI tools | Harvard University Information Technology

Designing Multimodal AI Learning Experiences

A Decision Tree to Guide Student AI Use

AI Guidance for Schools Toolkit

Triple E Printable Rubric for Lesson Evaluation

Evaluating AI Output and Iteration

Human-Centered AI Guidance for K-12 Public Schools

Enhancing Reflective Practice in the Age of AI

Submission Guidelines & Evaluation Criteria

To earn this micro-credential, you must receive a passing score in Parts 1 and 3 and be proficient in all components in Part 2.

Part 1. Overview Questions (Provides Context)

200-350 words
Please do not include any information that will make you identifiable to your reviewers.

Please answer all of the following questions:

1. What grade level(s) and subject(s) do you teach? Describe your teaching context, including any relevant learner considerations such as multilingual learners, students with disabilities, neurodivergent learners, age range, cultural

or community context, or other factors that shape how your students access and express their learning.

2. Why did you choose this micro-credential focused on students using AI in different formats (for example, text, image, audio, or other modalities)? Describe one or two specific student needs, barriers, or opportunities in your classroom context, and explain how multimodal AI tools might help you better support your students or put your community's needs first.

3. When you consider your curriculum or standards, how do you hope student use of multimodal AI will complement or enhance your existing goals? Provide at least one concrete example of how you hope this work will change your practice or improve student learning, engagement, or access.

Passing: A passing response clearly describes the educator's teaching context, purpose, and motivation for pursuing this micro-credential. It includes specific details about the classroom setting, relevant AI considerations, and the educator's goals for professional growth or student outcomes. The response provides at least one concrete example of how AI iteration connects to their teaching practice or student learning needs.

Part 2. Work Examples/Artifacts/Evidence

To earn this micro-credential, please submit the following **four** artifacts as evidence of your learning. See the Rubric for the passing score.

*Please do not include any information that will make you or your students identifiable to your reviewers.

Artifact 1: Learning Experience Plan for Student Multimodal AI Creation
This artifact represents instructional planning and design for a learning experience; it is not evidence of classroom implementation.

Create a planning document (one file) that describes how students will use AI tools in various formats to explore and draft an academic product. Your submission must include all required components listed below within a single uploaded file. Please do not upload separate documents.

- *Students may demonstrate their revised learning through formats such as written text, visual representations (e.g., diagrams or images), audio explanations, or a combination of modalities, as determined by the learning goal.*

Your submission must include the following items, in one file:

1. **Student Learning Objective**
   Provide a clear statement of what students should know or be able to do by the end of the activity.

2. **Student Task Overview**
   Description of how students will create an academic product using AI tools in one or more formats (text, image, and/or audio) to generate early drafts of a product.

3. **AI Modalities Students Will Use**
   - Specify whether students may choose their modality (e.g., text *or* image, *or* audio) or whether all students will use the same modality or tool.
   - Provide a rationale for your decision, such as accessibility needs, time constraints, technology availability, or developmental appropriateness.

4. **Accommodations and Modifications**
   Identify how you will support students with disabilities, multilingual learners, and students who require differentiated access, scaffolds, or alternative pathways during the AI creation process.

5. **Assessment Plan**
   Describe what evidence students will show to prove that they met the objective. This may include planning notes, early drafts, refinement steps, reflection questions, rubric criteria, or participation in iteration.

6. **Instructional Moves**
   Explain how you will:
   - Teach prompting and iterative refinement
   - Model evaluating AI for errors, bias, clarity, or missing details
   - Support students as they refine drafts and determine what to keep, change, or reject

7. **Final Product Expectation**
   Include a description of the meaningful combined product students will eventually create (no student samples required here). This should reflect how students will integrate their refined text, image, audio, or other AI-generated components into a cohesive outcome.

Examples of what your final product expectation could be:

- An assignment sheet you would upload to your LMS
- The directions students would see on Google Classroom, Schoology, Canvas, etc.
- A student-facing rubric
- A bulleted overview of what components the final product will include

- A one - to two-sentence summary of the combined product students will create

Artifact 2: Student Early Drafts Using Multimodal AI Tools

Submit examples of student drafts created in the modality or modalities selected for the learning task. Drafts should represent early or in-progress thinking, not final products.

Depending on your lesson design, drafts may include one or more of the following:

- **Text-based drafts**, such as brainstorms, outlines, captions, scripts, or early written explanations

- **Image-based drafts**, such as concept sketches, diagrams, visual representations, or AI-generated images, are used as part of the drafting process

- **Audio or other modality drafts**, such as voiceovers, audio explanations, soundscapes, or other AI-supported media used to explore or communicate ideas

Not all modalities are required. Select drafts that best illustrate how students used AI to support iteration, feedback, and revision while remaining the authors of their work.

Include a brief teacher note for each draft describing:
- The prompt used (or paraphrased)
- The purpose of the draft (idea exploration, concept visualization, etc.)

Artifact 3: Student Iteration and Refinement of AI-Generated Drafts
This artifact focuses on how student thinking changed over time, not on the quality of the product.

Submit a single file that demonstrates how a student refined an AI-supported draft through iteration, decision-making, and evaluation, with instructional support guiding that refinement.

Required Components

1. Evidence of Revision
Include at least one example showing before and after versions of a student draft (Version 1 and Version 2).
Refinement may occur:
- Within the same modality (e.g., revising a text draft)

- Across modalities (e.g., using feedback from a text draft to create or refine a visual or audio draft)

Focus on how the draft improved, not the modality used.

2. Explanation of what changed and why

Provide a brief explanation describing:

- What the student asked the AI to improve
- What changed in the output
- Why the change mattered (e.g., clarity, accuracy, alignment to the learning goal)

This explanation may be written by the teacher, the student, or collaboratively.

3. Teacher Support During Iteration

Describe the instructional support that enabled the revision. This may include examples such as:

- Modeling how to evaluate AI output
- Prompting questions you asked
- Feedback or guidance you provided
- Scaffolds or sentence starters
- Mini-lessons on accuracy, bias, or clarity
- Examples of revised prompts you suggested

This section should show how you taught students to iterate, not just that iteration occurred.

4. Evidence of Iterative Prompting

Include one of the following:

- The first prompt and the revised prompt
- A student's description of how the prompt changed
- A screenshot or excerpt showing two versions
- A narrative summarizing the iteration

This demonstrates the process students used to improve their drafts.

5. Evaluation statement

Include a short evaluation statement from the teacher or student explaining::

- How they judged the output's accuracy or inaccuracy
- Whether they identified bias or missing details
- How they decided what to accept, revise, or reject

Artifact 4: Final Multimodal Student Product (Revised to Incorporate the Useful Elements)

Submit a single file that includes one example of a student's final product demonstrating how two or more AI-supported modalities were intentionally combined to communicate learning aligned to the objective from Artifact 1.

This artifact represents the outcome of the iterative process, showing how students applied feedback, made decisions, and integrated elements into a cohesive final product.

1. Final Student Project

Include one student example that integrates two or more modalities, such as text, images, audio, or other AI-supported formats.

The final product may take a variety of forms appropriate to your lesson, including but not limited to:

- An illustrated narrative or explanation
- A visual explanation with supporting text
- An audio-enhanced script or presentation
- A short video draft or digital poster

2. Explanation of purposeful integration

Provide a brief explanation describing:

- Which modalities did the student use
- How the elements were intentionally combined
- Why does the combination make the final product clearer, more precise, or more meaningful than a single modality alone?

3. How the product meets the learning goal

Briefly describe how the student's final product demonstrates progress toward or mastery of the learning objective.

4. A reflection on AI's role in the final product

Describe how AI supported the student's learning or expression without replacing the student's thinking. You may note where the student made key decisions, added personal ideas, or shaped the final product in ways AI could not.

Part 2. Rubric

	Proficient	**Basic**	**Developing**
Artifact 1: Learning Experience Plan for Student Multimodal AI Creation	The Student Learning Objective is clear. The Student Task Overview describes exploring an idea using AI modalities (text, image, and/or audio) to generate drafts. The AI Modalities section specifies student choice (or lack thereof) with a clear rationale. Accommodations and Modifications are explicit and support diverse learners throughout the AI process. Assessment Plan describes specific evidence of objective mastery, including iteration/refinement steps. Instructional Moves explain *how* the educator will teach, including prompting, modeling, evaluation for bias/errors, and support for refinement.	The plan includes most required components but may lack detail or clarity in a few areas. The Student Learning Objective is present but may be broad. The Task Overview describes AI use, but the multimodal aspect (text, image, and/or audio) or the drafting purpose may be unclear. Accommodations are mentioned, but are generic or do not specifically address support during the AI process. The Assessment Plan is present but may only describe the final product rather than the iterative refinement steps. Instructional Moves are described, but the explanation of how the educator will model evaluation or teach refinement may be vague.	The plan is incomplete or missing key components (e.g., Accommodations, Assessment Plan, or Instructional Moves). The objective is missing or unrelated to multimodal AI use. The plan describes a general activity in which AI is used only for substitution, not for drafting or exploration. The plan does not specify the AI modalities used or is missing a rationale.

	The Final Product Expectation is a concise, meaningful description of the combined product.		
Artifact 2: Student Early Drafts Using Multimodal AI Tools	The submission includes at least one but no more than four initial AI-generated drafts (text, image, audio, or other formats) in the modality/modalities used in the lesson. The drafts clearly reflect early thinking and experimentation connected to the learning goal. A teacher note is provided for each draft, accurately describing the prompt used (or paraphrased) and the draft's purpose (e.g., idea exploration, concept visualization).	The submission includes drafts, but they may be incomplete or polished rather than clearly showing early thinking/experimentation. The draft(s) may not clearly connect to the learning goal defined in Artifact 1. A teacher note is present, but it may omit the prompt used or fail to explain the purpose of the draft (e.g., just lists the modality). The submission may only include one modality when the plan suggested multiple.	The submission does not include any drafts, or the submitted artifacts are not AI-generated. The drafts included are not in the modality/modalities specified in Artifact 1. No teacher note or description of the prompt/purpose is provided.
Artifact 3: Student Iteration and Refinement of AI-Generated Drafts	The submission clearly demonstrates the refinement process. It includes at least one revised draft example showing "before and after" versions. An explanation highlights what the	The submission shows a revised draft, but the "before and after" change may be minimal or unclear. The explanation is present but may only describe what	The submission contains only a single unrevised draft. The explanation of the change is missing or does not highlight what the student did to improve the draft.

	student asked the AI to improve, what shifted in the output, and *why* that change matters (e.g., clarity, alignment). A description of teacher support is provided, illustrating instructional moves used to enable revision (e.g., modeling, scaffolds, prompting questions). Evidence of iterative prompting is included (e.g., first and revised prompts). An evaluation statement from the educator or student explains how the output was assessed for accuracy/bias, and how decisions were made to accept, revise, or reject it.	changed, not why it mattered or how the student iterated. Evidence of iterative prompting is included, but the connection between the prompt change and the output change is weak. Teacher support is mentioned, but it is vague or does not clearly illustrate a specific instructional move (e.g., just "gave feedback"). The evaluation statement is missing or only briefly states that the output was "good".	No evidence of teacher support or iterative prompting (prompt change) is provided. The artifact is not a refinement of the drafts from Artifact 2.
Artifact 4: Final Multimodal Student Product	The submission is a single file including one student's final product. The product meaningfully and cohesively integrates two or more AI-generated modalities (text, image, audio, or other formats). A description of which modalities were used, how they	The submission includes a final product, but the integration of two modalities is mechanical rather than purposeful (e.g., two unrelated drafts placed side by side). The explanation of how the modalities work together is generic, describing only *what* they are, not why the	The submission includes a final product that uses only one AI-generated modality. The final product is missing or does not align with the objective in Artifact 1. The required explanation of how modalities work together is missing.

	fit together *purposefully*, and why the combination makes the product more precise or more meaningful. An explanation of how the product aligns with the learning objective from Artifact 1. A description of how AI supported the student's learning/expression without replacing their thinking, noting key decisions the student made.	combination is meaningful or more transparent. The product aligns with the objective, but the alignment note is missing. The reflection is present, but it focuses on the tool's ease of use rather than on the student's key decisions or thinking.	The reflection on AI's role is either missing or suggests that AI has entirely replaced the student's thinking.

Part 3 Reflection

(150-400 words)

For tips on writing a good reflection, review the following resource:
How Do I Write a Good Personal Reflection?

Please do not include any information that will make you identifiable to your reviewers.

Answer all of the following questions:

1. What did you learn about AI's ability to meet the varied needs of your students? How did the intentional use of different AI modalities (text, images, audio, etc.) support access, expression, engagement, or differentiation for diverse learners in your classroom?

2. How did experimenting with and coaching students through multimodal AI iteration (revising text + refining images, or combining audio + visuals) deepen your understanding of student learning and creativity? How will this work change your future instructional design and your role as a critical thinking facilitator?

Passing:
A passing reflection thoughtfully addresses both questions, provides specific examples of how experimenting across modalities influenced the educator's understanding, and demonstrates insight into the processes of iteration and synthesis rather than simple tool use. The reflection clearly connects multimodal exploration back to student needs, describing how different types of AI output can help engage, enhance, or extend learning for diverse learners.