Judging AI Outputs: A Framework for Educators

Competency

Learners analyze AI-generated content using the Five EdTech Quality Indicators and determine whether to accept, revise, or reject the output to provide accurate, inclusive, and actionable feedback to students.

Key Method

Learners review AI-generated content through a structured, evidence-based lens to determine whether it should be accepted, revised, or rejected before it reaches students. Using the Five EdTech Quality Indicators—safety, evidence-based, inclusivity, usability, and interoperability—learners determine when AI output adds value and when human input is essential.

By comparing original AI output with professionally revised versions, learners see how adjustments in tone, accuracy, or detail can impact student understanding. This process strengthens human–AI collaboration by ensuring AI tools serve as a support, not a replacement, for professional judgment.

Method Components

The Nature of AI-Generated Content

AI-generated responses can sound great, but they may not be verified facts. AI tools predict text based on patterns in the training data, and the output can be incomplete, biased, or even wrong. Educators must avoid over-reliance on AI, and use their professional judgment, which is not only valuable but also essential, to review and evaluate AI-generated content.

When educators understand how AI generates responses, they can assess these outputs critically before using them with students. By doing so, they can ensure that AI remains a support tool rather than a driver of instructional decisions.

Assessing Accuracy and Reliability

Educators must cross-check information against trusted sources and content standards before using AI tools to generate responses or instructional material. With intentional review, they can correct misleading or incorrect output that might confuse students or misrepresent expectations.

When educators review AI-generated content for factual accuracy and instructional relevance, they reinforce the teacher's role as the final evaluator. They model responsible behavior and ensure the information they share with students is accurate and reliable.

Identifying Bias and Ensuring Fairness

AI models learn from human-created data sets, which can be imbalanced, stereotyped, or culturally limited. Patterns of bias may appear in feedback, tone, and suggestions to students. Educators who are sensitive to bias can support fair learning and avoid reinforcing harmful assumptions. Educators can—and should—use the explicit feedback mechanisms in AI systems to signal positive and negative outputs to retrain the AI model.

Educators play a key role in recognizing when AI output might be accidentally disadvantageous, exclusionary, or misrepresentative of students. By evaluating AI-generated responses through an equity lens, educators can ensure fairness across diverse learners, particularly emergent multilingual learners, students with disabilities, and students from historically marginalized communities.

Practicing Transparency and Appropriate Attribution

Educators build trust and model ethical digital citizenship when they clearly communicate with their students about when and how they use AI in their instructional decisions. Students benefit when educators explain how AI assisted in creating instructional material and what parts of the work reflect human professional judgment.

Educators who are transparent about their AI use can help students learn to use AI responsibly. By documenting the role of AI and calling out revisions to AI output, educators cultivate classroom norms that value honesty and integrity.

Considering Contextual Impact on Student Learning

When educators use AI, they must review AI-generated content and consider its contextual impact; in some instances, an AI tool might produce output that is

technically correct but inappropriate for a particular student or student group. When assessing AI-generated content, educators must consider their students' age, background knowledge, language needs, and cultural relevance. This contextual lens helps educators determine whether the information will help or hinder their students in achieving true understanding.

Human insight, empathy, and expertise are irreplaceable in instructional design. By paying attention to context, educators can make sure that AI-generated content enhances, not hinders, student learning.

Reinforcing the Central Role of Human Judgment

AI cannot replace educators and their professional insight. Although AI can be a powerful tool throughout the drafting, brainstorming, and feedback processes, it cannot understand nuance. Educators know sensitive information, like student histories, and have professional judgment that is essential to instructional decisions, maintaining agency, and ensuring quality.

By consistently evaluating, revising, or rejecting the output of AI applications, educators become the final decision-makers, balancing the use of AI in teaching to support, not overshadow, human expertise.

Using Feedback Reflection to Strengthen Practice

Comparing how students engage with AI-generated output and instructor-revised feedback is an insightful way for educators to understand what best facilitates learning. When students display a pattern of understanding, confusion, or engagement, educators gain insights into AI-generated content, informing future use and improving their ability to quickly and accurately evaluate AI output.

In time, educators can develop an evidence-based sense of when AI-generated content is helpful and when it requires significant revision or rejection before reaching students.

The Five EdTech Quality Indicators

Seven leading edtech organizations—1EdTech, CAST, CoSN, Digital Promise, InnovateEDU, ISTE, and SETDA—agreed on a universal “Five Edtech Quality Indicators” framework to effectively evaluate edtech tools and products. Indicators are based on years of research and input from education leaders, policymakers, and industry experts.

These indicators can be used to inform a range of edtech decisions. However, in the explanations that follow, each indicator is tailored to educators, adapting the framework to evaluate AI-generated content. By examining AI output through this

context, educators can more confidently decide when AI-generated content should be accepted, revised, or rejected before it reaches students.

Safe
Instructional materials must protect student privacy and never introduce sensitive or inappropriate content. Educators should ensure that AI-generated output does not reveal personal information or rely on unsafe assumptions about students. Safe use reinforces trust and protects students' digital well-being.

Evidenced-Based
High-quality content and instructional materials are grounded in accurate information and aligned with appropriate standards. Educators should check all AI output for correctness, instructional relevance, and alignment with learning objectives and content standards.

Inclusive
Inclusive content and instructional materials reflect diverse learners and do not perpetuate assumptions about ability, culture, language, background, etc. AI output may unintentionally include biased or exclusionary statements. Educators must ensure content is reviewed and revised for to ensure accessibility and equitable support for all learners.

Usable
Content and instructional materials must be specific and actionable for students. AI output may be too generalized for students to use. By evaluating for usability, educators can determine whether AI output supports student improvement or needs revision to become more instructionally sound.

Interoperable
AI-generated content must fit within the broader instructional ecosystem. AI output should align with classroom expectations (for example, use the same rubric criteria, instructional language, or success indicators that students encounter during instruction). Educators must be able to seamlessly incorporate AI-generated content into their existing practices to assist with tasks such as annotating drafts, guiding revisions, supporting peer feedback, or informing grading decisions, without requiring additional tools or parallel systems.

This framework provides a consistent lens for analyzing AI output. When educators use the indicators to assess AI output, they can confidently determine what to trust, what to adjust, and what to set aside. This framework also helps educators strengthen their professional judgment. Further, the framework ensures that AI use supports, rather than complicates, instructional goals.

Supporting Rationale and Research

Akgun, Selin, and Christine Greenhow. “Artificial Intelligence in Education: Addressing Ethical Challenges in K–12 Settings.” *AI Ethics*, vol. 2, no. 3, 22 Sept. 2021, pp. 431–440, pmc.ncbi.nlm.nih.gov/articles/PMC8455229/

Idowu, Jamiu Adekunle. “Debiasing Education Algorithms.” *International Journal of Artificial Intelligence in Education*, vol. 34, no. 4, 4 Jan. 2024, pp. 1510–1540, https://doi.org/10.1007/s40593-023-00389-4.

Kocoń, Jan, et al. “ChatGPT: Jack of All Trades, Master of None.” *Information Fusion*, vol. 99, 3 June 2023, p. 101861, https://doi.org/10.1016/j.inffus.2023.101861.

Peláez-Sánchez, Iris Cristina, et al. “The Impact of Large Language Models on Higher Education: Exploring the Connection Between AI and Education 4.0.” *Frontiers in Education*, vol. 9, 13 June 2024, https://doi.org/10.3389/feduc.2024.1392091.

Rodway, Paul, and Astrid Schepman. “The Impact of Adopting AI Educational Technologies on Projected Course Satisfaction in University Students.” *Computers and Education: Artificial Intelligence*, vol. 5, 2023, p. 100150, https://doi.org/10.1016/j.caeai.2023.100150.

Resources

AI Support for Educators

Microsoft Elevate for Educators

AI Glossary of Terms

Glossary

AI and Its Role in Education

AI Considerations for Teaching and Learning

Principles for AI in Education

Unlocking AI Skills for Every Educator

Skill Up for Classroom Impact

AI-Generated Content in Education: Threat or Opportunity?

Accuracy, Reliability, and Instructional Quality

Easing the Burden on Schools: Five Quality Indicators for Edtech & AI Products

ISTE Hands-On AI Projects for the Classroom: A Guide for Secondary Teachers

Bias, Equity, and Fairness in AI Systems

Does AI Have a Bias Problem?

Edtech Equity Project Tackles Racial Bias in AI Learning Tools

Ethical AI for Teaching and Learning

Ethics, Transparency, and Responsible Use

Dos and Don'ts of AI in the Classroom

AI in Education Hub

AI Guidance for Schools Toolkit

Unlock Generative AI Safely and Responsibly—Classroom Toolkit

Human-Centered and Human-in-the-Loop Approaches

Human-Centered AI Guidance for K–12 Public Schools

Human-in-the-Loop Is Not a Buzzword: It's a Teacher's Job

Student-Facing Literacy and Critical Evaluation

Real or Not?

Real, Fake, or Deepfake? This Lesson Helps Students Decide

Teaching the Environmental Impact of AI Through PBL

Submission Guidelines and 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)

(200–300 words)
Please do not include any information that will make you or your students identifiable to your reviewers.

Answer the following prompts.

1. Describe your teaching context, including grade level, subject area, general student demographics, and the number of students who are emergent multilingual learners, students with IEPs, or students with other specialized instructional considerations. Do not include any personally identifying information.

2. How have you used or how are you currently using AI tools to assist with instructional tasks, such as planning, feedback, or assessment?

3. What challenges or concerns have you faced when working with AI-generated content, such as inaccuracy, bias, clarity, appropriateness, or student impact?

4. Why is it important for educators to evaluate whether AI-generated content should be accepted, revised, or rejected before sharing it with students? Provide specific examples to illustrate your statements.

Passing:
To receive a passing score for Part 1, you must respond to all questions clearly and thoughtfully and describe your instructional context without revealing identifying information.

A passing response:

- Includes how you use AI in your current practice, with specific examples;
- Identifies concrete concerns or issues you have faced with AI-generated outputs; and
- Explains why evaluating AI outputs—with attention to accuracy, fairness, and professional judgment—is a critical step before sharing for student use.

Part 2. Work Examples/Artifacts/Evidence

To earn this micro-credential, please submit the following **three 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: AI-Generated Response Samples with Student Work

Submit three anonymized student work samples that represent different learning needs or profiles (for example, emergent multilingual learner, student with IEP, general education student, or student with advanced academic readiness). Work samples may come from the same or different subject areas and instructional contexts.

Work samples do not need to be written responses. Acceptable formats include written work, images, video recordings, code, or other authentic student artifacts that can reasonably be reviewed by an AI tool to generate written output.

For each work sample:

- Submit the anonymized student work.
- Use an AI tool to generate a written response for the student's work.
- Paste or attach the AI-generated response directly below the student work; and
- Provide one or two sentences that describe how the student completed the instructional task.

Your artifact must show:

- Three distinct anonymized student work samples; and
- An AI-generated response for each sample.

For your submission, please compile all parts of this artifact into one document (PDF preferred). *Submissions should not include any identifying information about you or your students*.

Artifact 2: Evaluation of Whether to Accept, Revise, or Reject the AI-Generated Responses

Analyze the AI-generated responses from Artifact 1 using the **Five EdTech Quality Indicators: Safe, Evidence-Based, Inclusive, Usable, and Interoperable**.

For each student work sample from Artifact 1, create an evaluation (300–500 words) that includes:

- The AI prompt used;
- How accurate and relevant the AI-generated response was to the student's actual work;

- Whether the AI output demonstrated fairness and avoided bias;
- The degree to which the AI output promoted equitable learning opportunities.
- Whether the AI output was individualized and responsive to student needs;
- Your final decision for each sample: accept as-is, revise, or reject.
- A clear justification supported by evidence from the AI-generated response and the Five EdTech Quality Indicators framework.

Your evaluations of student work samples should be in one document. (PDF preferred)

Artifact 3: Revised Response and Student Conference Reflection

Using your analysis from Artifact 2, select one AI-generated response that you chose to revise. Revise the selected AI-generated response to meet the Five EdTech Quality Indicators standards. Confer with the corresponding student using the revised version.

Write a short, written reflection (200–300 words) that includes:

- How the student reacted to the revised response.
- Key differences you observed between the AI-generated response and the revised version; and
- Your understanding of when AI output supports student understanding and when it does not.

For your submission, combine your revised response and reflection into one document (PDF preferred).

NOTE: Feedback samples that were accepted as-is or rejected in Artifact 2 do not need to be revised or included in this artifact.

Part 2. Rubric

	Proficient	Basic	Developing
Artifact 1: AI-Generated Response Samples	The submission includes three distinct anonymized student work samples that represent varied learning needs. Each student's work sample is attached to its corresponding AI-generated response and clearly connects to the task. The submission is well-organized, complete, and anonymized.	The submission includes three samples with corresponding AI-generated responses, but the samples may lack diversity across learner needs, or AI output is incomplete or inconsistently aligned with student work. Submission displays minor issues with organization or clarity.	The submission includes fewer than 3 samples, may be missing AI-generated responses, and may not have student information properly anonymized. Submission is incomplete or not clearly connected to the task.
Artifact 2: Evaluation of Whether to Accept, Revise, or Reject AI-Generated Responses	The submission thoroughly analyzes each AI-generated response from Artifact 1 using the Five EdTech Quality Indicators framework. Evaluation provides a clear, well-reasoned decision (accept/revise/reject) for each AI-generated response, with strong evidence. Evaluation identifies a specific AI prompt for each sample. The evaluation demonstrates a deep understanding of the accuracy, fairness,	The submission addresses most components of the Five EdTech Quality Indicators framework, but with limited depth or uneven application across the indicators. The evaluation includes a decision (accept/revise/reject) for each AI-generated response, but the decision justifications may lack detail. Analysis may focus on surface-level issues.	Evaluation is missing, incomplete, or does not use the Five EdTech Quality Indicators framework. Evaluation includes decisions that are unclear, unsupported, or absent. The submission demonstrates little evidence of the educator's understanding of how to complete an AI evaluation.

	inclusiveness, and usefulness of AI output.		
Artifact 3: Revised Responses and Student Conference Reflection	The submission clearly addresses the issues identified in Artifact 2 and aligns language with the Five EdTech Quality Indicators framework. Reflection clearly describes the impact of the revised version on the student and demonstrates strong professional insight into effective and ethical AI use.	Submission includes revised version of AI output, but revision only partially improves the AI output. Reflection addresses some but not all required elements. Insight or detail may be limited.	Submission is missing the revised version of the AI output or does not reflect the analysis from Artifact 2. Reflection is incomplete, lacks detail, or shows minimal understanding of responsible AI use.

Part 3 Reflection

(200-400 words)
Please do not include any information that will make you or your students identifiable to your reviewers.

In your reflection, include responses to the following prompts:

1. How will you apply the AI output evaluation process in your future instructional practice? Describe at least one concrete way this process will influence how you use AI for planning, assessment, or student feedback.
2. What differences did you observe between the original AI-generated responses and your revised versions? Explain how those differences affected student understanding, clarity, accuracy, or equity.
3. Explain how revised responses changed or improved student learning or clarity.
4. Based on this experience, how will you decide whether to accept, revise, or reject AI output in the future?

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

Passing:
To receive a passing score, you must provide clear evidence that the activity improved your ability to evaluate AI output.

A passing reflection:
- Includes specific examples from the artifacts or student interactions; and
- Describe the actionable next steps on how you will use AI responsibly and effectively in your future practice.