Validating Student Understanding in an AI-Enabled Environment

An approach for supporting learning, accuracy, and academic integrity

As artificial intelligence (AI) becomes more common in coursework, one helpful approach is to focus less on whether AI was used to help produce a piece of work and more on whether the student demonstrates understanding of the work they submitted. This shift keeps the emphasis primarily on learning rather than AI detection and helps instructors identify whether students can explain, support, and stand behind what they turn in.

Using a validation lens does not replace other approaches to academic integrity or authentic assessment; it complements them. Faculty can use it alongside any assessment strategy, whether it explicitly includes AI, restricts AI, or does not mention AI at all. It offers one additional way to reinforce the habits and skills students will need across learning environments.

This perspective emphasizes what students will need in an AI-enabled world and workforce: the ability to verify information, explain their reasoning, evaluate sources, and confidently stand behind the work they present. These abilities remain essential regardless of the technology used to help complete an assignment.

What this approach looks for

A validation-focused lens encourages faculty to look for indicators that suggest a student understands their own work. These indicators help instructors see whether the student engaged with the material, made sense of their sources, and can speak to their choices. They are intended to serve as cues to support academic conversations.

These indicators are adaptable across disciplines and may include:

- **Accurate and appropriate use of sources:** Claims are supported with real, verifiable citations. Sources align with the content, and students avoid invented or mismatched references. This shows that they located credible information and used it intentionally.
- **Clear application of course concepts:** Students apply course terminology, models, or frameworks in meaningful and accurate ways. Their work reflects engagement with the material rather than surface-level repetition.
- **Specific, grounded examples:** When appropriate, students connect concepts to observations from work, school, or daily life, demonstrating an ability to translate theory into context. These concrete details help confirm that they genuinely understand the ideas they are discussing.

- **Reasoning that reflects comprehension:** Students explain why a claim matters, how they reached a conclusion, or how they evaluated the quality of information—showing critical thinking rather than repetition. Their reasoning provides insight into their decision-making.
- **Consistency between written work and follow-up explanations:** If asked a clarifying question (in writing, a quick video, or office hours), students can articulate the key ideas of their own submission clearly and consistently.

This approach does not use AI detection as a lens. Instead, it centers on whether students understand, can explain, and can stand behind what they turned in. It reinforces academic skill-building and helps faculty focus on learning rather than tool policing.

Why this approach opens meaningful conversation

Using a validation lens helps faculty identify when a student may not fully understand their own work. These moments often signal learning gaps rather than misconduct and can be addressed constructively. This approach gives faculty a clear pathway for responding without assuming intent or initiating punitive measures.

These issues are recognizable even without deep familiarity with AI. Examples include:

- Citations that are incorrect, incomplete, unverifiable, or not real
- Factual claims presented without credible support
- Misapplied or incorrectly explained course concepts
- Difficulty explaining part of the submitted work during a brief follow-up

When these issues arise, this approach provides a structured path for the instructor and student to have a constructive conversation. Instead of debating whether AI was used or taking punitive action, the focus shifts to helping students build essential academic skills. This helps students learn how to evaluate information, strengthen their understanding, and build confidence in communicating ideas clearly.

Faculty can support students by guiding them to:

- Verify facts with credible sources
- Correct or replace inaccurate citations
- Strengthen clarity, reasoning, and application of course concepts
- Revise unclear or generic sections that reflect a misunderstanding
- Understand when AI-generated content must be evaluated, corrected, or supplemented

Depending on the issue, this can lead students to revise and improve their work, turning potential concerns into opportunities for learning, skill-building, and growth. The emphasis remains on transparency, accuracy, and understanding, not on catching AI use.

Student-facing guidance on validating and citing information

The following guidance can be shared with students to help them understand what instructors look for when assessing whether they can stand behind the work they submit. It reinforces the importance of clear reasoning, accurate information, and responsible use of research and AI tools: skills that matter both in college and in the workplace.

Faculty can adapt this language for syllabi, assignment instructions, or announcements to help students build confidence in evaluating and presenting information:

Validating and citing information

In academic and professional settings, credibility matters. Whether you're preparing a written assignment, presenting an idea, or contributing to a discussion, it's important to be clear about where your information comes from and to ensure its accuracy.

If you're drawing from your own experiences, observations, or opinions, no citation is needed. Those insights come from you, and they add depth and relevance to the conversation.

If you share facts, statistics, or other details that require research or aren't commonly known, you must cite a credible source. Doing so shows that you checked your information, thought carefully about where it came from, and can stand behind its accuracy.

Some information does not usually require a citation, including:

- **Personal experiences or direct observations:** *Example: "During my internship, our team used weekly check-ins to stay on track," or "In my retail job, I noticed customers respond well to clear product displays."*
- **Widely known common knowledge:** *Example: "Arizona is known for having a hot, dry climate."*
- **General information that most people in the field of study would reasonably know:** *Example: A business student noting, "Organizations use budgets to plan for upcoming expenses."*

When information is specific, not widely known, or something you had to look up, citing a source is appropriate and necessary. It provides transparency and strengthens your credibility.

You don't necessarily need to cite AI tools unless your instructor requires it. However, if AI provides information you didn't already know, you are responsible for verifying that information with a credible source before including it in your work. AI tools can be helpful for brainstorming or drafting, but they do not replace the need to check accuracy or apply critical thinking.

You may use any citation style permitted in your course. If you need help getting started, your college library's writing and citation resources are a great place to begin.

Keep in mind that validating the information you use and citing credible sources helps you produce accurate, trustworthy work. At the same time, it builds habits that will benefit you in both academic and professional environments. This is especially true as AI tools become more integrated into everyday communication and decision-making.

Conclusion

A validation-focused lens is compatible with any authentic assessment approach a faculty member chooses to use. Whether AI is part of the assignment or not, the expectation remains the same: students should understand, explain, and stand behind the work they submit. This approach reduces unproductive debates about AI use, supports transparent learning practices, and creates opportunities for students to revise, clarify, and strengthen their work.

Most importantly, it prepares students for the expectations of a changing, AI-enabled workforce. Accuracy, critical thinking, and information literacy remain essential workforce skills, even when powerful technological tools are available.