

Automated Assessment

Category: Artificial Intelligence in Education

Automated assessment is the use of computational systems to evaluate learner responses or performances with limited human intervention at the point of scoring. Methods range from fixed-answer marking to models that classify writing, speech, code or other complex evidence.

Automation does not remove the need for assessment expertise. Validity depends on whether the system's output supports the intended interpretation and decision, while reliability, fairness and security must be examined for the actual population and context ([Shermis & Burstein, 2013](#)).

Assessment Safeguards

1. **Construct alignment:** Ensure the automated method measures the intended learning rather than an easy proxy.
2. **Representative evidence:** Test performance across relevant languages, groups, tasks and response formats.
3. **Transparency:** Explain the role of automation, criteria, limitations and consequences to learners.
4. **Human review:** Require expert judgement for ambiguous, novel or consequential cases and appeals.
5. **Monitoring:** Audit errors, drift, security and unintended effects throughout use.

Examples in Practice

A programming course may automatically run student code against test cases and award low-stakes practice marks. Instructors also inspect reasoning, code quality and unusual failures. Students can see the criteria and request review when an efficient but legitimate solution was not anticipated by the tests.

Why It Matters

Automation can provide consistent, rapid results at scale, but consistency is not the same as validity. When important decisions depend on a score, institutions need strong evidence, accessible explanations and a genuine route to human review. They must also retain responsibility across assessment cycles when a system is supplied by an external provider ([Hahn et al., 2021](#)).

Further Reading

6. Shermis, M. D., & Burstein, J. (Eds.). (2013). [Handbook of automated essay evaluation](#). Routledge.
7. Hahn, M. G., Navarro, S. M. B., De La Fuente Valentin, L., & Burgos, D. (2021). [Effects of automatic scoring and automatic feedback in educational settings](#). IEEE Access, 9, 108190–108198.
8. OECD. (2023). [OECD Digital Education Outlook 2023](#). OECD Publishing.

Related Terms: Automated Feedback | Assessment Validity | Algorithmic Bias | Academic Integrity