

# AI-Supported Differentiation

## Category: Artificial Intelligence in Education

AI-supported differentiation uses artificial intelligence to help educators vary routes to shared learning in response to learners' readiness, interests, language or support needs. It may assist with alternative explanations, examples, formats or levels of scaffolding, but it should not lower expectations or fix learners into categories.

Differentiation remains a pedagogical judgement grounded in evidence about learning. AI-generated adaptations require review for accessibility, accuracy, dignity and equivalent intellectual value, and learners should retain meaningful choice ([Tomlinson, 2017](#)).

## Differentiation Safeguards

1. **Common purpose:** Maintain clear, ambitious learning goals while varying routes, support or expression.
2. **Evidence:** Base adaptations on current learning evidence rather than assumptions about identity or ability.
3. **Choice:** Offer flexible options and avoid permanently assigning learners to an AI-generated pathway.
4. **Accessibility:** Check language, format, assistive-technology compatibility and cultural relevance.
5. **Review:** Observe learning and revise support when it constrains participation or challenge.

## Examples in Practice

For a dense academic reading, a tutor may use AI to draft a glossary, guiding questions and an audio-friendly summary. Each resource is checked against the original text and offered to the whole group. Students still analyse the same central argument and can choose which support to use.

## Why It Matters

AI may help educators prepare varied resources at practical speed, especially in linguistically diverse classrooms. Poorly designed differentiation can instead reproduce bias, expose sensitive data or restrict opportunity; inclusive design and professional monitoring remain essential. Students should not receive a narrower curriculum because a system has inferred difficulty from incomplete evidence across successive learning activities over time ([CAST, 2024](#)).

## Further Reading

6. Tomlinson, C. A. (2017). [How to differentiate instruction in academically diverse classrooms](#) (3rd ed.). ASCD.
7. CAST. (2024). [Universal Design for Learning Guidelines version 3.0](#). CAST.
8. Miao, F., & Cukurova, M. (2024). [AI competency framework for teachers](#). UNESCO.

**Related Terms:** Universal Design for Learning | Inclusive Pedagogy | Adaptive Learning | Scaffolding