

Cognitive Tutor Algebra I — RAND's Randomised Effectiveness Trial Finds a Delayed Gain of About 0.2 SD in U.S. High Schools

AI in Education · Good practice · United States of America

Quality score: 53/100

Evidence strength: Moderate

Summary

A large cluster-randomised trial of Carnegie Learning's Cognitive Tutor Algebra I found no significant effect in year one but about +0.2 SD in year two for high schools; middle-school gains were similar but not significant.

Key dimensions

Dimension	Score
Evidence of learning impact	2/3
Equity & inclusion	1/3
Transparency, ethics & data protection	1/3
Teacher capability & pedagogy	2/3
Scalability & sustainability	2/3

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-10-19

RAND Corporation / Carnegie Learning — accessed 2026-10-19

IES What Works Clearinghouse study review — accessed 2026-10-19

Evidence for ESSA — Cognitive Tutor — accessed 2026-10-19

Sales & Pane, log-data analysis (arXiv) — accessed 2026-10-19

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