

Research on AI Tutoring

What the evidence says and what it means for education

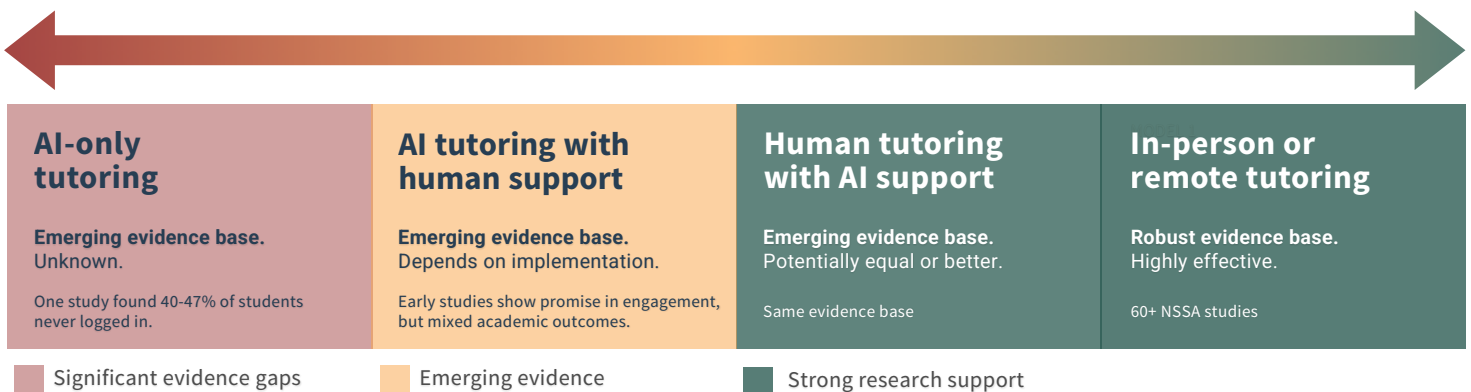
RESEARCH SUMMARY

States, districts, and schools are buying AI tutoring tools faster than the evidence can tell them what works. While individual students and teachers may see value in the use of AI tutors, **studies remain limited and have not tested different contexts.** The National Student Support Accelerator and the AI Hub for Education at Stanford's SCALE Initiative published a research brief sharing which AI tutoring use cases are currently supported by evidence.

Different Models of AI Tutoring

Least Human Connection

Most Human Connection



What the Evidence Shows



When given AI tutors, many students do not engage.

Students who did use the AI tutoring program logged on for an average of just two to five minutes per week, which is far below the dosage associated with academic gains.



Adding a human helped engagement, but not achievement.

Human oversight, check-ins, and motivation improve engagement and keep instruction aligned to curriculum. It does not by itself get students to a level of usage that produces academic gains.



The strongest results so far come from AI tools built for the human tutors, not the students.

With an AI coach delivering real-time recommendations to virtual tutors, students were more likely to master lesson topics.

Considerations for Education Leaders

Put privacy and safety guardrails in first.

Enterprise-grade data agreements and tutor training on protecting personally identifiable information (PII) belong in place before implementing any AI tutoring tools.

Use AI to strengthen what we know makes tutoring work.

This includes dosage monitoring, tutor coaching and training, curriculum-aligned materials with human review, and data synthesis.

Prioritize AI that supports tutors, not substitutes them.

Student-facing AI tutoring does not yet possess the evidence base on effectiveness, and should serve a specific purpose that supports humans.

