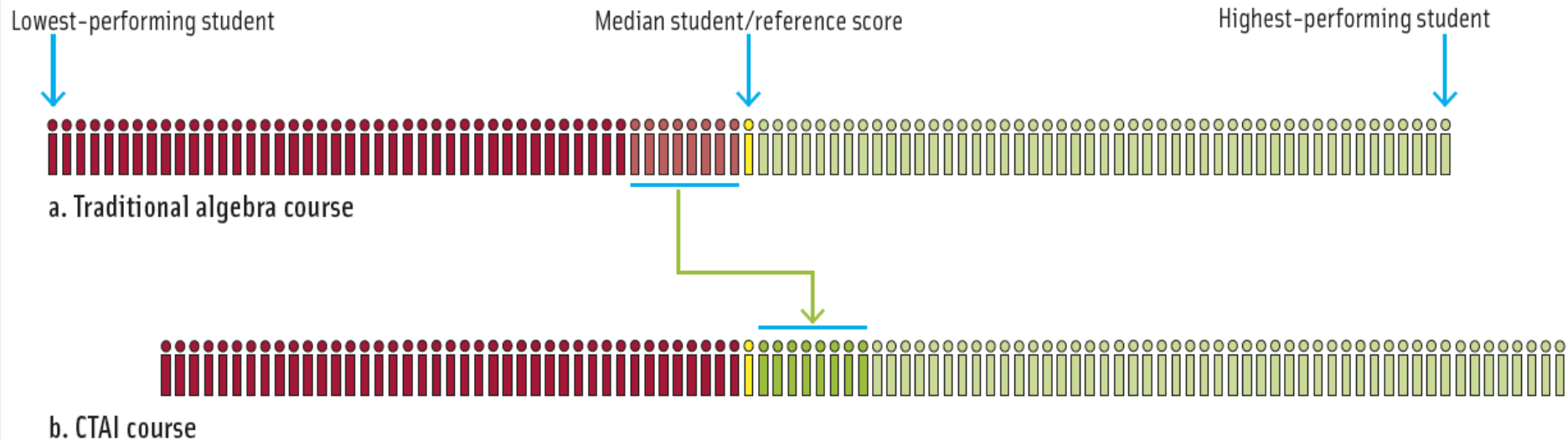


RAND Evaluation of Cognitive Tutor Algebra I



What did the study find?

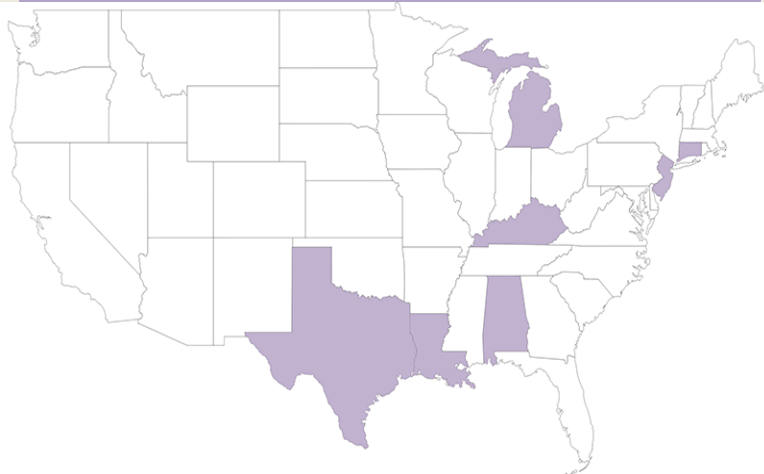
- Cognitive Tutor students performed *significantly better* on end-of-year algebra proficiency exam



Source: RAND statistical model based on high school students participating in second year of study

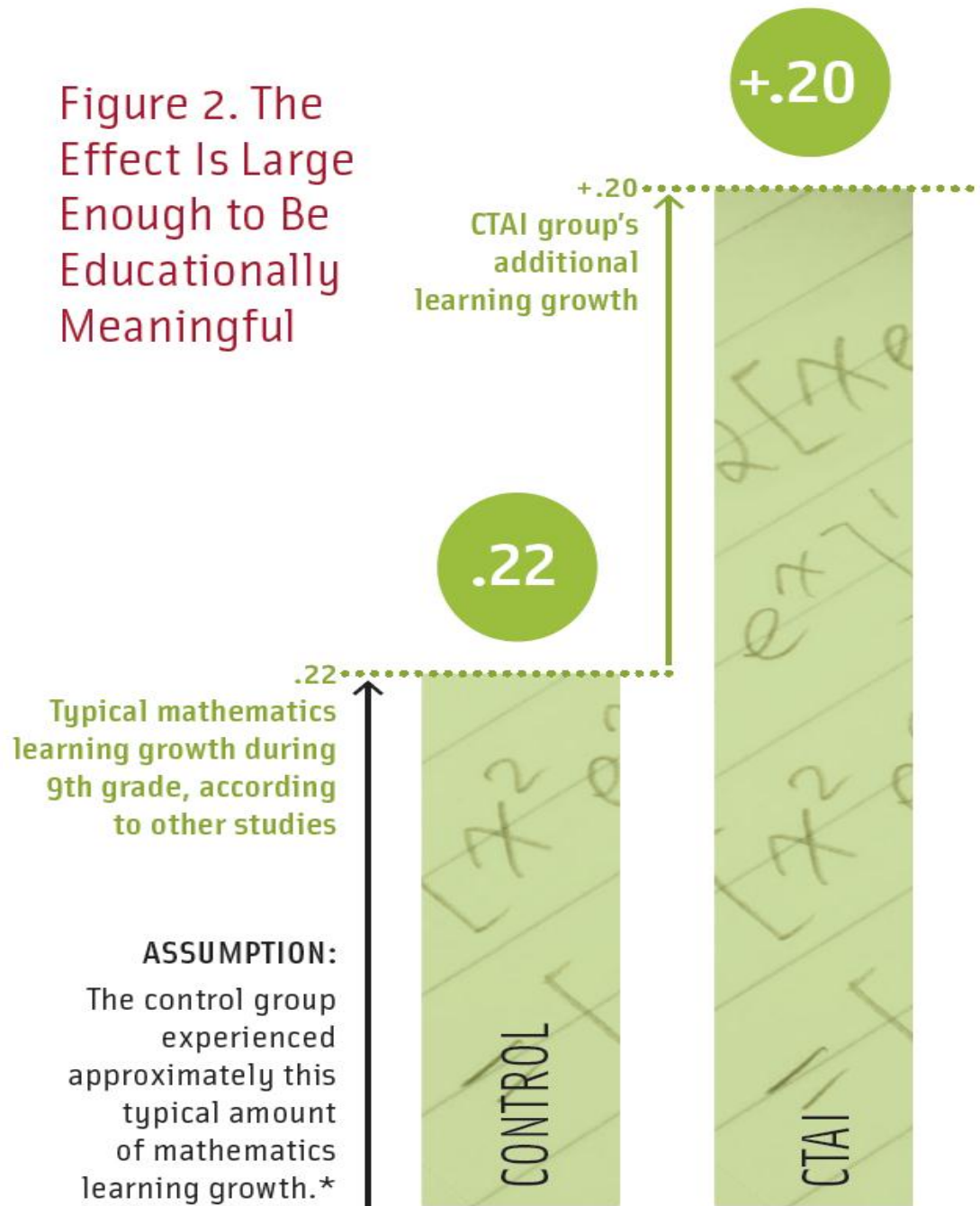
Why is the study credible?

- Performed independently by RAND
- Randomized controlled trial research design
- Performed in a diverse set of 147 schools in seven states
- Program implemented in realistic fashion with no special support – few studies have this feature



Why are the results important for mathematics education?

Figure 2. The Effect Is Large Enough to Be Educationally Meaningful



Typical mathematics learning growth during 9th grade, according to other studies

ASSUMPTION:
The control group experienced approximately this typical amount of mathematics learning growth.*

*Learning growth is measured here in standardized effect sizes.



Why are the results important for education technology?

- First large-scale study showing effectiveness of *education technology*, and specifically, a *blended learning* approach
- Blended learning combines computer-based instruction with face-to-face instruction by teachers





EDUCATION

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Additional study details at: www.rand.org/t/RB9746