What Works Clearinghouse

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WWC Quick Review of the Report "Effectiveness of Reading and Mathematics Software Products: Findings for Two Student Cohorts"†*

What is this study about?

The study examined the effects of ten reading and mathematics software products on student achievement.

The study analyzed data on more than 11,000 students in 400 classrooms and was conducted in 23 primarily urban, low-income school districts. The number of students in the analysis of each curriculum ranged from about 600 to about 2,600.

Volunteer teachers were randomly assigned to either incorporate the computer software into their curriculum or to continue using their regular curriculum.

The study tested the effectiveness of each software product by comparing the standardized test scores of students in classrooms using the products to those of students in similar classrooms not using the products.

What did the study authors report?

The study found a positive, statistically significant effect for one of the six reading products examined (*LeapTrack*®, 4th grade). The estimated effect size was 0.09, equivalent to moving a student from the 50th to the 54th percentile of reading achievement.

None of the four math products examined demonstrated significant effects on student achievement.

What Software Products Were Examined?

Reading:

- First grade: *Destination Reading*®; *Waterford Early Reading Program*™; *Headsprout*®; *PLATO*® *Focus*
- Fourth grade: *LeapTrack*®; *Academy of Reading*®

Mathematics:

- Sixth grade: *Larson's Pre-algebra*; *PLATO*® *Achieve Now*
- Algebra I: *Cognitive Tutor*® *Algebra I*; *Larson's Algebra*

In classrooms assigned to use *PLATO*® *Focus* or *Cognitive Tutor*®, the assigned curriculum was used instead of the core curriculum. In classrooms assigned to use any of the other products, the assigned curriculum was used to supplement the core curriculum.

WWC Rating

The research described in this report is consistent with WWC evidence standards

Strengths: This study is a well-implemented randomized controlled trial.

Cautions: This study was not designed to compare the relative effectiveness of the tested software products, since they were tested in different settings. Instead, the results indicate the effectiveness of these products relative to the regular curriculum being used in the districts included in the study.

†Campuzano, L., Dynarski, M., Agodini, R., & Rall, K. (2009). *Effectiveness of reading and mathematics software products: Findings from two student cohorts* (NCEE 2009-4041). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

*Absence of conflict of interest: This study was prepared by Mathematica Policy Research, which also operates the WWC. For this reason, the study was reviewed by staff from Empirical Education, ICF International, and Concentric Research & Evaluation.