



8+ Skills in Exact Path Leads to State Assessment Gains

Completion of 8+ skills corresponds to significant and sizeable improved achievement on the AASA in mathematics, with improvement indexes as high as 19 points.

A rigorous study examined the impact of Exact Path usage in grades 4–8 on state assessment scores in math during the 2021–2022 school year in a large school district in the Western United States.

Students who used Exact Path learning paths showed a sizeable, statistically significant increase in performance on the Arizona Academic Standards Assessment (AASA) in all grades studied. Results indicate that the average student can be expected to accelerate learning for a gain of 6 to 19 percentile points on their state assessment from one spring to the next when Exact Path is implemented with fidelity.

The quasi-experimental efficacy study meets ESSA Tier 2 evidence and the What Works Clearinghouse 5.0 Group Design standards with reservations.



About this District

- 5,200+ students
- Location: Western United States
- 84% Hispanic

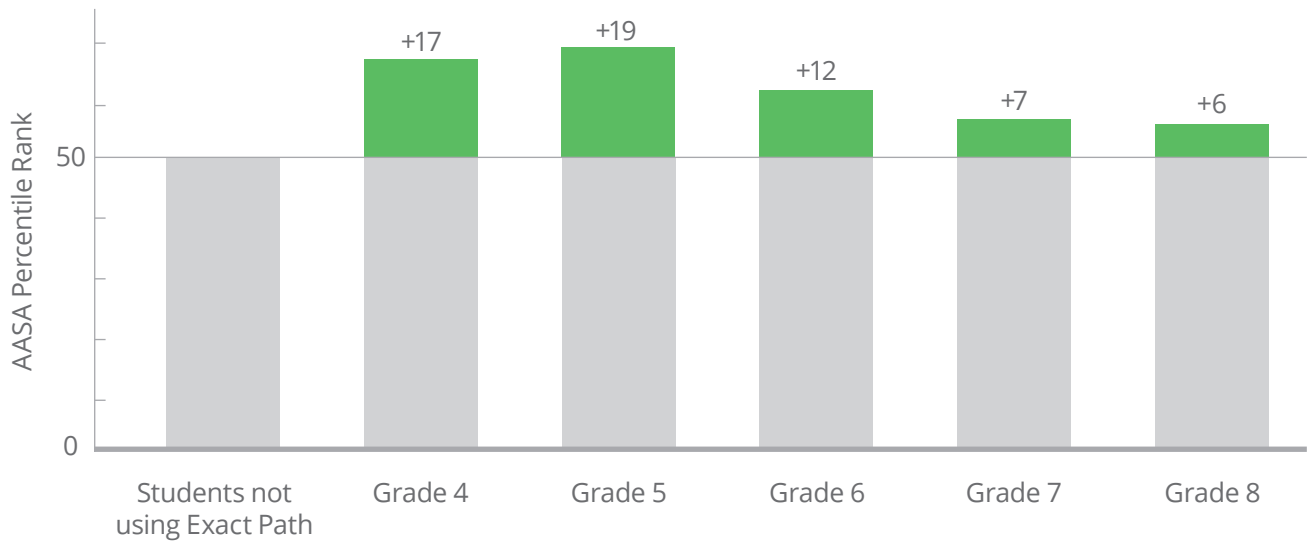
Study sample:

- 2,400+ students
- 21% English language learners
- 10% receiving special education services

Outcome measure:

- Arizona's Academic Standards Assessment (AASA)

Expected Increase in AASA Math Percentile Rank when Students Complete 8+ Exact Path Skills



All findings are statistically significant at $p > 0.001$ (Grades 4-7) or $p > 0.01$ (Grade 8). Study sample included more than 450 students per grade (Grade 4 $n=484$, Grade 5 $n=463$, Grade 6 $n=454$, Grade 7 $n=479$, Grade 8 $n=540$).

The improvement index, shown above as an increase in percentile rank, is a reframing of effect size, a statistical indication of the magnitude of impact on student achievement and a critical measure for understanding how well educational interventions support student success. The effect size found in this study falls within the largest 10% of effect sizes documented in nearly 750 rigorous studies of interventions intended to improve mathematics and reading achievement¹.

Study Aligns to National Research Findings

This research has similar findings to three independently conducted national studies from Century Analytics. Those subject-specific analyses show that students who complete lessons in Exact Path learning paths show greater gains in achievement compared to students who do not. This ESSA tier 2 evidence found large improvement indexes in all subjects, with expected gains of 8-15 percentile points between interim assessments.

¹ Kraft, M. (2020). Interpreting effect sizes of educational interventions. *Educational Researcher*, 49(4), 241-253.

