

Understanding ESSA EVIDENCE



In 2015, as part of the reauthorization of the Elementary and Secondary Education Act (ESEA), Congress passed and the President enacted the Every Student Succeeds Act (ESSA), which replaced No Child Left Behind. ESSA encourages local and state educational agencies and schools to place a strong emphasis on evidence-based interventions, strategies, or approaches when purchasing and adopting solutions and services.

Within the law, evidence-based solutions are described as programs showing evidence of producing positive results on student outcomes. Specifically, the type of evidence backed by formal research and studies.

ESSA defines four tiers of evidence:

Tier 1—Strong:

Supported by one or more experimental studies.

Tier 2—Moderate:

Supported by one or more quasi-experimental studies.

Tier 3—Promising:

Supported by one or more correlational studies.

Tier 4—Demonstrates a Rationale:

Practices that have a logic model, are supported by research, and have some effort of study underway.

Third Edition

TRANSMATH[®]

TransMath[®] Third Edition provides a comprehensive math intervention curriculum that targets middle and high school students who lack the foundational skills necessary for entry into algebra and are two or more years below grade level in math. With explicit instruction and multisensory strategies that deepen conceptual understanding and problem-solving proficiency for students in grades 5–10, **TransMath's** lesson-by-lesson models support teacher preparation and strengthen teacher's content knowledge.

TIER 1 STRONG Criteria as Defined by ESSA	How TransMath Meets the Strong Criteria
<ul style="list-style-type: none"> • Demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes • Based on strong evidence from at least one well-designed and well-implemented experimental study 	<ul style="list-style-type: none"> ✓ Rigorous, large-scale randomized controlled trial (RCT) using TransMath evaluated the effectiveness of small-group intervention in fractions for fifth grade students performing below grade level in mathematics. ✓ Sample from three school districts in two U.S. states. ✓ Results showed intervention group significantly outperformed comparison group on all outcome measures used in the study.*

*Study used for ESSA classification: Jayanthi, M., Gersten, R., Spallone, S., Dimino, J., Schumacher, R., Smolkowski, K., Karp, K., & Haymond, K. (2018). Impact of a Tier 2 fractions Intervention on 5th Grade Students' Fractions Achievement: A Technical Report. Los Alamitos, CA: Instructional Research Group.

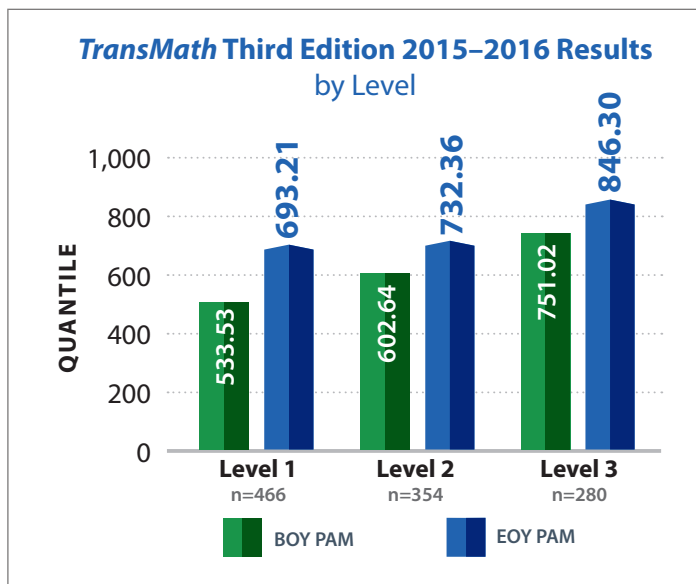
Research & Evidence: [TransMath Research Summary: Independent Articles and Articles with Independent Measures](#)

Results: [TransMath Third Edition Results for 2015–2016](#)

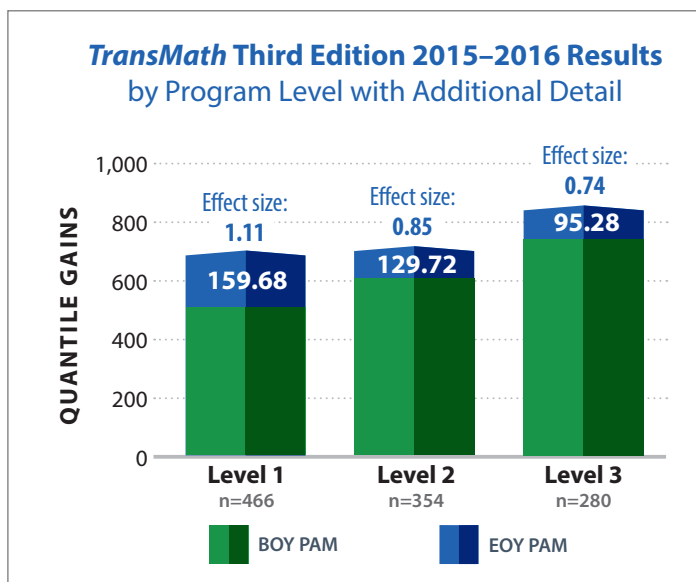
Case Study: [New Rochelle, NY](#)

TransMath Results Summary

From the **TransMath** Third Edition 2015–2016 National Results, students receiving instruction in the program show strong growth from the beginning of year (BOY) to the end of year (EOY) in mathematical skills as measured on the Progress Assessment of Mathematics, created by MetaMetrics®, developer of the Quantile® Framework for Mathematics. In the graphs below, the Quantile gains, on average, are about 160Q for Level 1 students, 130Q for Level 2 students, and 95Q for Level 3 students. Effect size was 1.11 for Level 1. For Level 2 and Level 3, the effect sizes were 0.85 and 0.74 respectively. These effect sizes are considered large and educationally meaningful.



- Each **TransMath** level is represented with bars.
- Data comes from Progress Assessment of Mathematics (PAM) created by MetaMetrics, developer of the Quantile® Framework for Mathematics.



- Students in Level 1 had an effect size of 1.11; students in Level 2 had an effect size of 0.85; students in Level 3 had an effect size of 0.74.
- The Quantile gain and effect sizes associated with each are considered large and educationally meaningful.