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.

Tier 2: MODERATE Criteria as Defined by ESSA

- Demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes
- Based on at least one well-designed and well-implemented quasi-experimental study.

How Vmath Meets the Moderate Criteria

- Quasi-experimental study examined the impact of an integrated learning system, Vmath, on students considered at risk of academic failure on the state outcome assessment of mathematics.
- Two groups of students were evaluated to determine the effectiveness of Vmath. The treatment group received computed-assisted math support in addition to an Algebra I class where the control group received an Algebra I class only.
- Sample for the study included 1,676 ninth grade students from a large, suburban Texas school district.
- Findings showed statistically significant differences on achievement in mathematics between the treatment and control groups.
- Study concluded students considered to be at-risk of academic failure in mathematics improved on the Texas Assessment of Knowledge and Skills (TAKS) test with remediation and support from Vmath.

Voyager Sopris Learning® Data Summary

**Vmath** Third Edition results show students are making significant progress toward closing the achievement gap with peers. Results from the 2015–2016 National Summary are represented in the graphs below. Data comes from the Progress Assessment of Mathematics (PAM) created by MetaMetrics®, developer of the Quantile® Framework for Mathematics. All students, at all levels had an average Quantile growth of 199.07. Effect sizes across all levels are regarded as large and educationally meaningful.

**Vmath Third Edition 2015–2016 Results by Program Level**

According to Cohen (1988), effect sizes (for differences expressed as means) of 0.2 are considered small, 0.5 are medium, and 0.8 are large. An effect size of 0.3 is considered educationally meaningful.