Dallas ISD
Reasoning Mind
Results
2015–2016

Solving for every variable
During the 2015–2016 school year, nearly 33,000 students in the Dallas Independent School District (Dallas ISD) used Reasoning Mind *Foundations*, a blended learning program for elementary mathematics. The program was used as a supplement to traditional instruction with all second, third, and approximately half the district’s fourth graders, and as a core curriculum for a very small group of fifth graders. This was the fifth consecutive year of large-scale program use in the district, and findings from previous years can be found at www.reasoningmind.org/results.

Selected results from Reasoning Mind’s 2015–2016 school year implementation in Dallas ISD are below. This report includes analyses taken directly from Dallas ISD’s published evaluation as well as Reasoning Mind analyses conducted using data shared from Dallas ISD. Readers interested in viewing Dallas ISD’s full research report can do so by visiting their Evaluation and Assessment website and searching the 2015–2016 “Program Evaluations” report index.

**Students who used Reasoning Mind for more hours were more likely to meet grade-level targets on standardized tests**

A total of 12,269 Dallas ISD second graders used Reasoning Mind and were assessed on the Terra Nova Assessment in the 2015–2016 academic year. The district set a goal for students to use Reasoning Mind for two or more hours per week (resulting in approximately 60 hours of usage per school year) and answer problems with an accuracy of 75% or higher. Students who spent more time using the Reasoning Mind system were more likely to meet the Terra Nova grade-level standard (40th percentile or higher) in second grade.
A total of 12,234 Dallas ISD third graders used Reasoning Mind and were assessed on the State of Texas Assessments of Academic Readiness (STAAR) in the 2015–2016 academic year. As with second grade, the district set a goal for students to use Reasoning Mind for two or more hours per week and answer problems with an accuracy of 75% or higher. Students who spent more time using the Reasoning Mind system were more likely to meet the STAAR Satisfactory Standard in third grade.

5,881 fourth-grade students used Reasoning Mind in Dallas ISD and were assessed on STAAR during the 2015–2016 academic year. As with second and third grade, the district set a goal for students to use Reasoning Mind for two or more hours per week. Students who spent more time using the Reasoning Mind system were more likely to meet the STAAR Satisfactory Standard in fourth grade.
Students who completed more Reasoning Mind objectives tended to perform better on standardized tests

Across all ethnic groups in second grade, students who completed more Reasoning Mind objectives were generally more likely to meet the Terra Nova grade-level standard (40th percentile or higher) in second grade.

Across all ethnic groups in third grade, students who completed more Reasoning Mind objectives were generally more likely to meet the STAAR Satisfactory Standard in third grade.

1 “Objectives” are individual lessons in Reasoning Mind’s curriculum.
Finally, across all ethnic groups in fourth grade, students who completed more Reasoning Mind objectives were generally more likely to meet the STAAR Satisfactory Standard in fourth grade.

Dallas ISD teacher survey highlights from the 2015–2016 school year

- Over 80% of teachers said Reasoning Mind “improved” or “significantly improved” their students’ independence in learning, confidence in mathematical ability, and enjoyment of mathematics.
- 75% of teachers would like Reasoning Mind on their campus next year.
- 82% of teachers believe their students benefit from Reasoning Mind.
- 83% of teachers were “satisfied” or “extremely satisfied” with Reasoning Mind’s support.
- 97% of teachers found Reasoning Mind’s in-person training “very helpful” or “somewhat helpful”.

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Of additional importance, survey results regarding program effectiveness and satisfaction are trending upward over time, particularly among teachers:

- Would like RM on campus next year
  - 2013–2014: 59%
  - 2014–2015: 47%
  - 2015–2016: 59%

- RM helps teachers be more effective
  - 2013–2014: 42%
  - 2014–2015: 39%
  - 2015–2016: 50%

- Students benefit from RM
  - 2013–2014: 62%
  - 2014–2015: 58%
  - 2015–2016: 67%

- Would recommend RM to others
  - 2013–2014: 49%
  - 2014–2015: 43%
  - 2015–2016: 54%

- Campus teachers are positive toward RM
  - 2013–2014: 51%
  - 2014–2015: 45%
  - 2015–2016: 52%

Extending learning time outside regular school hours

Reasoning Mind has been shown to increase time on task by as much as 25% compared to the conventional classroom. In addition, many Reasoning Mind students log into the program on their own outside regular school hours, either at home, the library, or in their after-school program. During the 2015–2016 school year, over half of all Reasoning Mind students in Dallas ISD used the program outside of the regular school day.

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3 Figure reproduced from page 29 of the [Dallas ISD Reasoning Mind 2015–2016 Report](https://www.dallasisd.net/).
No program is effective if it is not implemented with fidelity. To this end, Reasoning Mind and the district must continue to alleviate barriers to proper usage, particularly in the fourth and fifth grades, which had the lowest time online and overall curriculum completion in 2015–2016.

This low usage seems to have impacted program effectiveness – in both grades four and five, non-Reasoning Mind students slightly outperformed Reasoning Mind students on STAAR (though the difference was not statistically significant when accounting for prior achievement and economically disadvantaged status). Several irregular implementation designs contributed to lower usage in grades four and five. In contrast to mandated usage in grades two and three, grades four and five were optional for campuses. Grade four in particular was often de-prioritized and confined to only “STAAR Module” use, rather than the full Reasoning Mind program. Grade five was also intended as a core curriculum, with target usage of 70–90 minutes per day, rather than 120 minutes per week. Below are the most commonly cited implementation barriers by teachers and campus administrators for all grade levels.

The most commonly cited implementation challenges included:

- Technology-related issues (limited access to working computers, computer/accessories malfunctions, outdated technology, wireless connectivity problems, network problems, log in issues, etc).
- Difficulty meeting mandated time requirements (Reasoning Mind curriculum not aligned to district curriculum, inadequate access to working technology).

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4 Figure reproduced from page 12 of the Dallas ISD Reasoning Mind 2015–2016 Report.
And the most commonly cited suggestions for improvement included:

- Increase the number of computers / ensure adequate working computers in wired labs / improve technology support.
- Align Reasoning Mind curriculum to district/state curriculum requirements.

Without adequate time in the Reasoning Mind system, students will not progress to their full potential. The graph below shows that Reasoning Mind students in Dallas ISD who used the program 75% or more of the recommended target time during the 2015–2016 school year outscored their peers with less usage in all grade levels on both the Terra Nova and STAAR assessment. Clearly, improving implementation fidelity will result in increased gains for students.

Based on the feedback above, Reasoning Mind will:

- Work closely with the district’s technology department to ensure technology issues impacting the implementation are resolved as quickly as possible. [Technology]
- Provide schools with resources on how to better incorporate Reasoning Mind into their regular math instruction. [Alignment]
- Train teachers and administrators on best practices for customizing the Reasoning Mind curriculum [Alignment/Flexibility]
- Continue to emphasize/train teachers in using STAAR modes to help match the TEKS Resource System [Alignment/Flexibility]