



# High-Dosage Tutoring Program Summary

## Eastside Memorial High School, 2014–2015

### Purpose and Findings

This report describes the High-Dosage Tutoring (HDT) Program at Eastside Memorial High School and its academic outcomes for Algebra I students. Austin Independent School District (AISD) Department of Research and Evaluation (DRE) program evaluators found HDT participants experienced positive academic outcomes. A comparison of HDT participants and non-participants showed HDT participants had significantly higher scores and were significantly more likely to pass the Algebra I State of Texas Assessment of Academic Readiness (STAAR) end-of-course test than were non-participants.

Tutors, teachers, and students believed the program was implemented well and beneficial to students. Program evaluators interviewed Algebra I teachers and HDT tutors, who had positive feedback on program practices and outcomes. Students who participated in HDT completed an end-of-year survey and also gave positive responses.

### Algebra I STAAR End-of-Course Assessment

Program evaluators found HDT was a significant determinant in students' performance and HDT participants performed statistically significantly better than did students in a matched comparison group.

Figure 1  
**HDT participants met the Algebra I STAAR test passing standard at a significantly higher rate than did students in the comparison group.**

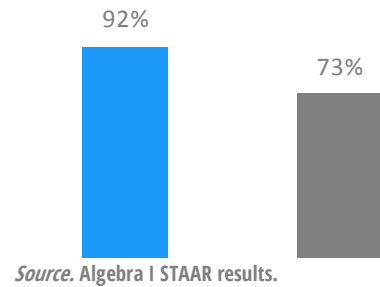


Figure 2  
**HDT participants' Algebra I STAAR test scores were significantly higher than those of students in the comparison group.**

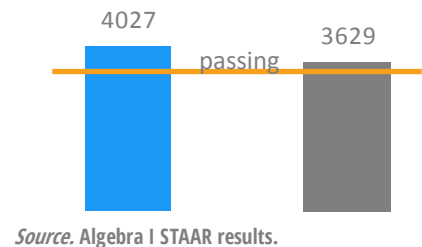
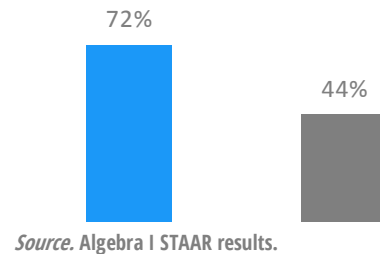


Figure 3  
**HDT participants who failed to meet the 8th-grade math STAAR passing standard met the Algebra I STAAR test passing standard at a higher rate than did students in the comparison group. However, these results were not statistically significant.**



*Everyone here has worked another contract...and most of us would agree that this is the place where you can see the effects of your work and where you feel the most comfortable doing your work.*

–HDT tutor

## Tutor Focus Group

DRE staff conducted a focus group with eight HDT tutors and the program manager to discuss program implementation and student outcomes. Overall, tutors were impressed with Eastside Memorial's implementation and HDT outcomes.

**Tutors believed Eastside Memorial's implementation was the best HDT program they had seen.** Tutors received training on topics such as student behavior, classroom management, and time management. The program manager provided tutors with

instructions, and tutors communicated with teachers frequently. The program manager arranged tutor-student groups based on personalities and learning styles. Tutors reported the administration did a good job involving teachers, making classes close in size, and providing a classroom dedicated only to HDT. Eastside Memorial provided HDT to all students. (Tutors explained that other schools used a library or a cafeteria and pulled students from their electives.) Tutors believed Eastside Memorial's arrangement encouraged students to treat HDT as a class, which improved their behavior, and the small size of the school factored into these positive elements.

**Tutors witnessed academic and personal growth of HDT participants.** Tutors acknowledged difficulty in judging HDT outcomes but believed there were positive developments. Tutors believed students felt special because tutors took an interest in and cared about them. Tutors also reported students may have had math skills but lacked the necessary confidence, which they built in the small groups. Tutors said students became more patient, perseverant, and self-reliant, and began to believe they could succeed. Tutors reported students were impressed with how much they accomplished.

**Tutors aimed to improve students' comprehension in algebra.** Tutors reinforced what students were learning in Algebra I, identified their specific needs, cleared up confusion, and engaged students. Tutors changed teaching strategies, as needed; developed camaraderie with students; and served as a support system for students.

**Tutors reported the HDT model worked well.** Tutors believed teachers may fail to notice or be unable to address students' needs in class, but the small group setting of HDT allowed tutors to identify students' needs and help them understand the material. Tutors also said students felt comfortable asking questions in small groups and enjoyed the fun activities, structure, and routine of the program.

## Comparison Groups and Propensity Score Matching

Analyses using propensity score matching and a matched comparison group allow researchers to gauge probable causal effects of program participation.

Propensity score matching is a statistical technique that creates an index accounting for variables that can influence program effects, such as demographics and academic background. Researchers use this technique to create a matched comparison group, a group that has similar characteristics to the participant group but has not participated in the program. Researchers compare outcomes of the matched comparison group with those of the participant group to determine probable program effects.

In this analysis, DRE staff used propensity score matching to ensure the matched comparison group was similar to the HDT participant group in terms of gender, ethnicity, English proficiency status, economic status, special education status, school attendance, and 8th-grade test scores. The participant group was similar enough to the comparison group to draw conclusions about the probable academic effects of HDT Program participation.

*I have a student this year...who I've seen improve incredibly. She has gone from not really liking math and...not being very good at it to having the confidence to ask good questions and really, really improved.*

–HDT tutor

**Tutors recommended several ways to improve the program.** They recommended involving the school and introducing teachers to the program and tutors early on. Tutors would like someone to observe teachers' lessons and report to them how the teachers taught the material and would like a better understanding of how lessons fit in to teachers' scope and sequences. Tutors said they would also benefit from more professional development opportunities, such as sessions teachers attend, refresher training, and strategies for working with students who have language issues. They also wanted to remediate students' basic math skills, so they could move faster through the algebra content.

### Teacher Focus Group

DRE staff interviewed two Algebra I teachers to garner their perceptions of HDT program implementation and effects. Teachers had positive views of both implementation and student outcomes. They felt the HDT Program was the best use of funding to improve students' algebra abilities and hoped Eastside Memorial would continue using HDT. In this focus group, teachers discussed their role, the tutors and program implementation, and student outcomes.

*It's a lot easier for [the tutors] to analyze specifically what skills each kid has or is lacking, so then they'll communicate that back to us.*

–Algebra I teacher

**Teachers described frequent communication with tutors and the tutoring program manager.** Teachers told the program manager what topic(s) they would like tutors to cover and how the tutors should teach the topic(s). The program manager then relayed this information to the tutors. Teachers talked with tutors daily, for 30 to 45 minutes. They discussed students' needs, difficulties students had with certain topics, and class absences. Teachers believed one reason this frequent communication was possible was the small size of the Eastside Memorial campus.

*Most of the tutors...take the relationship [building] part with the kids seriously, and that's the most important part.*

–Algebra I teacher

**Teachers applauded the quality of the tutors and program logistics.** Teachers believed all tutors had strong math skills and took relationship building with students seriously. Also, teachers appreciated that the program provided extra adults who could help in other situations. At times, tutors helped in other classes if their HDT students were absent. Teachers praised the program manager for creating compatible tutor-student groups. Teachers found the small tutor-to-

student ratio helpful because it allowed tutors to analyze students' specific needs for each skill. Teachers reported HDT allowed struggling students to get the attention they need but may not receive in a classroom setting. The only criticism teachers had of the program was scheduling issues due to the use of a block schedule system.

**According to teachers, students found HDT beneficial, and their algebra knowledge and grades improved because of it.** Teachers said students found working with the tutors difficult in the beginning, but students ended up missing the program after they moved on to the next grade. According to the teachers, students enjoyed the activities, games, and prize system of HDT. Teachers reported that some students did not like going to HDT because they had to do work when with their tutors, unlike in a normal classroom.



## Student Survey

Program evaluators surveyed 145 HDT participants at the end of the school year, a response rate of 93%. The survey asked students about their experiences with and perceptions of the program. Students' responses were very positive.

**99%** agreed that their tutor helped them become better at Algebra I.

**83%** agreed that they liked Algebra I better because of their tutor.

**98%** agreed that working with their tutor was a good use of their class time.

*Tutoring has helped me understand algebra a lot easier. I'm thankful for this class.*

–HDT participant

*I really enjoyed working with my tutors and I think that they helped me a lot with my algebra.*

–HDT participant

The survey asked students to share any additional comments about their experience with the program. Almost all comments were positive. Students reported that they enjoyed and appreciated their tutors, found the program helpful, and learned from it.

## Purpose and Background

In the 2014–2015 school year, Eastside Memorial High School implemented the HDT Program for all Algebra I students. The purpose of the HDT Program was to improve academic achievement in algebra through regularly scheduled tutoring targeting students' unique learning needs.

The 2014–2015 school year was Eastside Memorial's fourth year implementing the HDT Program. The program served approximately 156 9th-grade Algebra I students. AISD contracted with Sylvan Learning and worked with the campus-based Sylvan program manager to implement HDT services. Fourteen tutors from Sylvan worked with small groups of two to four students for 90 minutes every other day in a designated classroom space. AISD paid for the program with local funding from the School Turnaround budget. The program cost approximately \$565,000 in the 2014–2015 school year, an average of \$3,622 per participant.

In the 2014–2015 school year, Eastside Memorial met state accountability standards for the first time since 2002. These standards included STAAR end-of-course exam passing requirements. The school also received several distinctions, including Academic Achievement in Mathematics.

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