The Effects of a Writing Tutoring Program on 5th-Grade Academic Performance at a Low-Income Elementary School in HISD

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Introduction

 Elementary schools in the Third Ward area in Houston show consistently lower scores in writing as compared to other subjects on standardized tests

HISD District STAAR Performance: Elementary

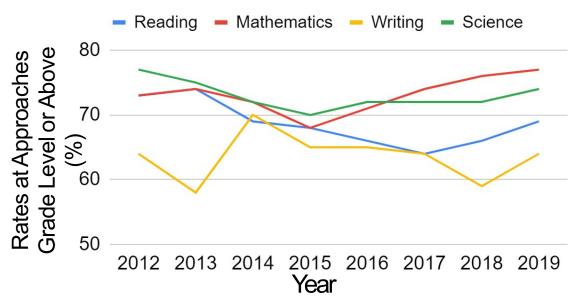
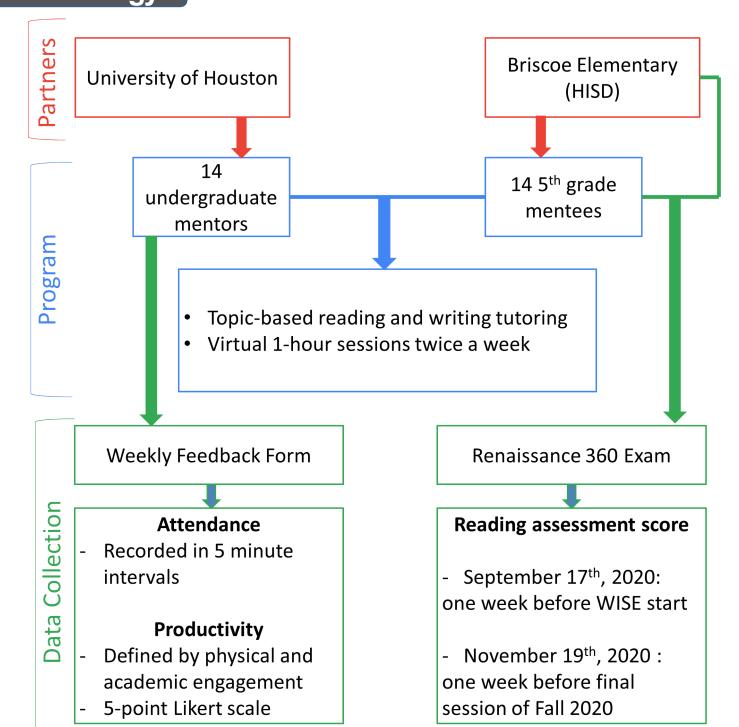


Figure 1: HISD overall STAAR performance in elementary schools over time as reported by the Texas Education Agency (TEA).

- Writing to Inspire Successful Education (WISE) was created by highachieving University of Houston Honors College undergraduate students partnering with a lower-income elementary school, Briscoe Elementary, in the Houston Independent School District (HISD) system.
- Program Goals
 - improve the development of foundational writing skills
 - increase students' confidence in their ability to write
 - reduce the income-achievement gap in education

Methodology



Results

Mentee Benchmark Scores Baseline- 9/17 New- 11/19 - 5th Grade Target 800 400 200

Figure 2 compares 9/17 and 11/19 reading benchmark scores. Scores are reported individually for a total of 13 mentees. 3 mentees increased to 5th grade target by 11/19 benchmark.

Individual Mentees

Mentee Benchmark Classification

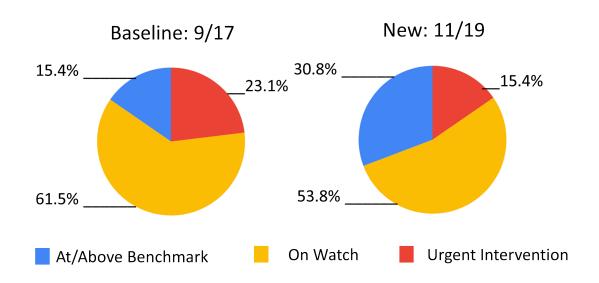


Figure 3 compares the distribution of benchmark classification in mentee group (n=13). Distribution improved by 11/19 benchmark as shown by "Urgent Intervention" decreasing and "At/Above Benchmark" increasing.

Effect of Attendance on Benchmark Score

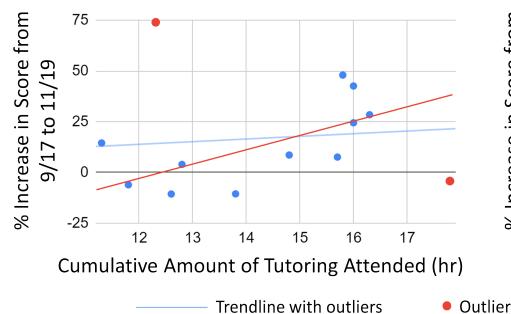


Figure 4A: Attendance data for each mentee from 9/17 to 11/19 added and converted to hours. Pearson correlation with outliers: n=13, r=0.1053, p=.732 Without outliers: n=11, r=0.6694, p=.024 Higher mentee tutoring attendance is positively correlated with increased benchmark scores.

Effect of Productivity on Benchmark Score

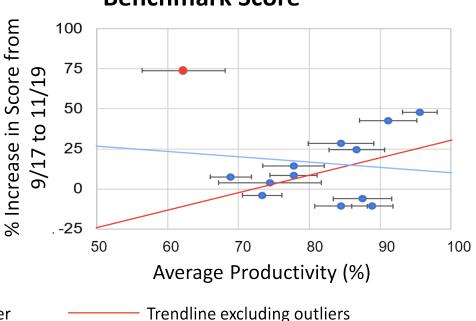


Figure 4B: Productivity score averaged and converted to a percentage out of 100% for each mentee. Error bars= ±SE. Pearson correlation with outliers: n=13, r=-0.1169, p=.706 Without outliers: n=12, r=0.4611, p=.131 Higher mentee productivity visually correlates with increased benchmark scores but is not statistically significant.

Key Findings

- Barring significant outliers—
 there is a visual positive
 correlation between the
 amount of both time and
 productivity in remote tutoring
 sessions and performance on
 standardized benchmark
 assessments for reading lowincome fifth-grade students.
- Benchmark distribution improved overall
- Mentees slightly below 5th grade target appear more likely to reach target by the 11/19 benchmark

Conclusion

- Tutoring in writing and reading skills for elementary-aged students may lead to an increase in writing scores on standardized tests such as the State of Texas Assessments of Academic Readiness (STAAR).
- Collecting and analyzing data from standardized tests such as the STAAR may provide further information on how writing tutoring affects performance in all academic subjects.

Limitations:

- <u>Low sample size</u>: Further research on the influence of writing tutoring on academic performance is necessary to fully understand the potential this has on reducing the income-achievement gap.
- <u>Lack of writing specific assessment data</u>: While reading assessments give insight into the effect of writing tutoring, additional assessment data is necessary to provide information on WISE's effect on writing skills
- <u>Outliers</u>: External variables such as technological problems associated with virtual tutoring and mentor bias may have resulted in outliers.

Acknowledgments

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