

Imagine Language & Literacy: Increased Performance on the STAAR Assessment

Research Report

Background

Research indicates that computer assisted instruction can positively impact students' performance in language and literacy development (Cassady & Smith, 2004; 2005; Cheung & Slavin, 2011; Macaruso & Rodman, 2011). Imagine Language & Literacy is instructional software designed to build language and literacy skills among students in PreK through sixth grade, and for English learner (EL) students in PreK through eighth grade. To improve language and literacy achievement, Imagine Language & Literacy features instruction in phonemic awareness, phonics, vocabulary, fluency, comprehension, grammar, and language development (both academic and conversational). The program aligns with educational standards and addresses skills students need to become proficient in reading.

During the 2017–2018 school year, six elementary schools in a western Texas school district implemented Imagine Language & Literacy as a supplemental tool. To determine the impact of the program on student growth, we compared scores from the 2017 and 2018 administrations of the STAAR Reading assessment for approximately 224 fourth-grade users and 502 fourth-grade non-users of the Imagine Language & Literacy program. Students who used Imagine Language & Literacy logged an average of approximately forty-two hours in the program across the school year.

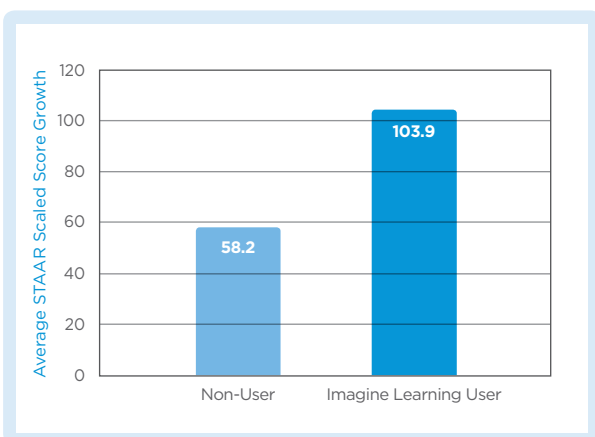
Results

The figure below presents the average STAAR Reading scale score growth for fourth-grade students who used Imagine Language & Literacy and those who did not use the program during the 2017–2018 school year. On average, students who used the program achieved forty-six more points of STAAR Reading scale score growth than non-users. This difference equates to a Cohen's *d* effect size of 0.51 which surpasses the effect sizes typically observed for programs similar to Imagine Language & Literacy, and indicates Imagine Language & Literacy users were 1.8 times more likely to outperform non-users (Cheung & Slavin, 2012; Cohen, 1988). Ultimately, these results demonstrate a statistically significant positive impact for fourth-grade students who used the Imagine Language & Literacy program.

Conclusions

The results of this study support the role of Imagine Language & Literacy as a supplementary tool for the development of language and literacy achievement. Fourth-grade students who used the program in this Texas school district for the 2017–2018 school year experienced significant improvements in literacy proficiency as demonstrated by performance on the Texas STAAR Reading assessment. Given these findings, we would expect similar results for other fourth-grade students who use the Imagine Language and Literacy program with fidelity.

Imagine Learning users demonstrate significantly higher growth than non-users



References

- Cassady, J. C., Smith, L. L., & Thomas, C. L. (2018). Supporting emergent literacy for English language learners with computer-assisted instruction. *Journal of Research in Reading, 41*(2), 350-369. doi:10.1111/1467-9817.12110
- Cheung, A. C. K., & Slavin, R. E. (2012). *Effects of Educational Technology Applications on Reading Outcomes for Struggling Readers: A Best Evidence Synthesis*. <https://doi.org/10.3102/0034654312465472>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*: Lawrence Erlbaum Associates.
- Macaruso, P., & Walker, A. (2008). The efficacy of computer-assisted instruction for advancing literacy skills in kindergarten children. *Reading Psychology, 29*, 266-287. doi:10.1080/02702710801982019