



**2018 Highlights from Study of Promise Research conducted for  
STORYWORLD by WestEd  
March, 2018**

**Funded by NewSchools Venture Fund**

**Student Learning Outcomes: Summary of Findings**

- **Students demonstrated statistically significant increases in their motivation to read, Self-Concept as a Reader and Value of Reading over the short duration of the study**
- **Students whose home language was Spanish were more likely to experience larger gains on their English reading outcomes**
- **Students whose home language was English were more likely to experience larger gains on their Spanish reading outcomes**
- **STORYWORLD has the potential to bridge the learning gap in reading in English and Spanish**

**Overview of Study**

In the fall of 2017, WestEd researchers conducted a classroom implementation study exploring the use of StoryWorld in Spanish-English dual immersion classrooms. The study was funded by the NewSchools Venture Fund, as a part of their English Language Learning Challenge, to support academic outcomes for students learning English. The purpose of this study was to explore the feasibility of using Storyworld in elementary school classrooms, and to gauge its potential to support student learning and engagement in reading.

This type of exploratory research is critical to understanding StoryWorld's value for classroom learning and the assumptions underlying the product's intended outcomes. This study also seeks to evaluate the effectiveness of certain StoryWorld features to inform future development efforts and increase the impact of the product.

## Influence of student attitudes towards reading

On the Motivation to Read overall scale and its two subscales, Self-Concept as a Reader and Value of Reading scales, **students showed statistically significant gains on all three outcomes.**

On the overall Motivation to Read scale, students improved by an average of 2 points ( $p < 0.05$ ) which translates to a 2.5% increase in reading motivation. On the Self-Concept as a Reader scale, students improved by an average of 1 point ( $p < 0.05$ ) which translates to a 2.5% increase in their self-concept or feelings of their own ability. Lastly on the Value of Reading scale, students improved by an average of 1 point ( $p < 0.10$ ) which translates to a 2.5% increase in their value of reading.

**Students who were particularly lower in overall reading motivation, self-concept as a reader, and value of reading experienced larger gains on all measures of reading motivation.** For example, students who were about 1 standard deviation below the class average on reading motivation were expected to see about a 4-point increase ( $p < 0.05$ ) on the survey, or a 5% increase in reading motivation. Students who were about 1 standard deviation below the class average on the self-concept scale were expected to see about a 2-point increase ( $p < 0.10$ ) on the survey, or a 5% increase their self-concept as a reader. Students who were about 1 standard deviation below the class average on the value of reading scale were expected to see about a 3-point increase ( $p < 0.05$ ) on the survey, or a 7.5% increase in the value of reading.

## Student engagement

Both native English and native Spanish speakers consistently stayed on task while using StoryWorld and expressed to teachers that they enjoyed using the product. As one teacher shared, “The children were completely engaged and they loved using it.” Not only did students like reading the stories, but they had fun completing the quizzes. “They loved the activities at the end,” one teacher commented. “It's fun. It's instant feedback on whether or not you got the vocabulary.”

Teachers reported that StoryWorld was a valuable tool to keep students actively engaged in learning another language. One teacher explained, “I think often times when [students] read stories in hard copy, they come across a lot of words that they don't know and they just keep reading.” In providing instant translation, however, StoryWorld encourages students to learn words they do not know.

Students were highly motivated by earning points for reading stories and completing quizzes.

## Student learning gains using StoryWorld

The results around student learning gains are based on pre-to-post-test differences on the STAR Reading Assessment for both English and Spanish. Overall, no statistically significant pre-to-post -test difference was detected for students on either English ( $p = 0.662$ ) or

Spanish assessment ( $p = 0.235$ ). **However, when considering students' baseline on the pre-test and home language (English or Spanish), consistent and meaningful trends were detected** although not statistically significant for both English and Spanish outcome measures.

## StoryWorld benefits for student subgroups

**Students whose home language was Spanish were more likely to experience larger gains on their English reading outcomes. Similarly, students whose home language was English were more likely to experience larger gains on their Spanish reading outcomes.**

Although not statistically significant, when controlling for students' baseline values, the preliminary results (i.e., from the sign of the coefficient) suggest that **students who did lower on their pre-test (or would be considered lower performing students) experienced larger gains**. This pattern for lower performing students was consistent for both the English and Spanish versions of the STAR Reading Assessment and the domain scores reported on both assessments. Additionally, although not statistically significant, a consistent and meaningful pattern was found (i.e., from the sign of the coefficient) between students' home language and their reading outcomes.

## Summary

- Students demonstrated statistically significant increases in their motivation to read over the short duration of the study. Student increase by an average of 2 points ( $p < 0.05$ ) which translates to a 2.5% increase in their overall reading motivation.
- Students whose home language was Spanish appeared to show larger gains on their English reading outcomes compared to their native English-speaking classmates.
- A consistent, but not statistically significant, pattern of growth was noticed for lower performing students, suggesting that STORYWORLD has the potential to engage lower performing students in reading in English and Spanish.

In summary, no statistically significant differences were detected between students' pre- and post-test scores on the STAR Reading Assessment in English and Spanish for the 2-week implementation study. **However, a consistent pattern was noticed for lower performing students that suggested that even with the short-time access and use of StoryWorld in the class, StoryWorld has the potential to engage lower performing students and help bridge the learning gap in reading in English and Spanish.** Additionally, students whose home language is Spanish appear to show larger gains on the English reading outcomes while students whose home language is English appear to show larger gains on the Spanish reading outcomes. This consistent, but not statistically significant trend in the data suggests that StoryWorld has promise as a language tool to help support English language learners or as a bilingual language tool to support native English speakers.

*The findings around changes in student attitudes towards reading are based on pre-to-post-test differences on the Motivation to Read Profile (Gambrell, Palmer, Codling, & Mazzoni, 1996) and eight student attitudes questions regarding in reading in their first or another language.*