CASE STUDY

Addressing the Needs of Striving Readers Through Structured Literacy

The Freedom School, St. Louis, MO

Summary

Located in St. Louis, Missouri, The Freedom School had a significant portion of their students who were a year or more below grade-level in the area of reading. Due to these difficulties, many students were not able to access grade-level materials for learning. In order to begin meeting the needs of their students, The Freedom School sought out more explicit and targeted forms of reading instruction. Their answer was to use SPIRE® with their striving readers.

Scope & Focus

The Freedom School in St. Louis, Missouri sought to address the needs of their striving readers, those who fell within Tier 2 or Tier 3 status within a Response to Intervention or Multi-tiered Systems of Support framework. Their target population included students who receive external (pull-out) services for reading intervention, as well as those who were able to be served in the inclusive setting by their general education teachers. Given these needs, they selected SPIRE as their go-to reading intervention.

97
Total Students

30%
Students Eligible for Special Education Services

60%
Students Identified as Striving Readers

75%
Economic Disadvantage

Implementation

As part of The Freedom School's implementation of the SPIRE program, they engaged in universal screening three times during the 2017-2018 school year and continued this screening during the 2018-2019 school year. The selected assessment battery included the aimswebPlus® Test of Early Literacy Measures and the Qualitative Reading Inventory, Fifth Edition (QRI). These measures were administered to all students and then used to identify those students who were at-risk of not meeting grade-level reading benchmarks (specifically those students who met Tier 2 and Tier 3 status). Once students were selected for intervention services, they were connected with an external reading intervention group (pull-out services) or inclusive reading intervention with their classroom teacher. Students were then administered the SPIRE placement test to determine their starting position within the SPIRE reading program.

In terms of intervention delivery, students received SPIRE instruction five days per week if they were provided resource (pull-out) intervention and three to four days per week if they were provided inclusive intervention. As for duration, all students were delivered SPIRE reading instruction in 30-minute blocks.

Evaluation

In order to evaluate the effectiveness of the SPIRE program, with regards to Beulah's targeted reading instruction population, paired samples t-tests, effect size, and Wilcoxon signed-rank tests were utilized. Specifically, pre- and post-SPIRE outcomes were evaluated for all participants to determine if SPIRE had any discernible impact on student performance. 18 total students were identified as SPIRE program participants and presented with viable data.

Oral Reading Fluency (ORF) accuracy and student text level on the QRI were used as the analysis measures within the present study. To be included in the study sample, all participants needed to present with contiguous data for the fall and spring administrations of these particular assessments.

Further, to gain an understanding of the implementation, impact, ease-of-use, and accessibility of professional development materials within the SPIRE reading program, an 18-item, four-factor survey (SPIRE Implementation Survey) was completed by six respondents at The Freedom School. Results were reported through the mode (most frequent responses) for each item and factor, given the ordinal nature of Likert-type scale responses.

Response options included strongly disagree, disagree, neutral, agree, or strongly agree for each item. Items were then combined via mode for the designated factor.

> **"SPIRE is a huge reason my struggling readers are successful in reading. It takes time to implement, but it is time well worth it."**
>
> –Kimberly Balek, First Grade Teacher

Results

Overall, results suggest statistically significant ($p < .05$) differences between pre- and post-SPIRE ORF accuracy and QRI text level outcomes. Specifically, the mean difference in ORF accuracy growth was an improvement of 18.33 percentage points, suggesting that students who were delivered the SPIRE reading program were able to correctly read an average of 18.33% more words when presented with an unfamiliar grade-level text. See Table and Diagram next page.

Further, a statistically significant difference was observed with regard to student text level improvements on the QRI measure, which is summative in nature ($p = .001$), indicating a true location (or text level shift) that is not equal to 0 and different in nature in terms of rank position relative to a participant's text level indication ($V = 105$).

Oral Reading Accurracy Growth
From Fall of 2017 to the Spring of 2018

A comparison of mean ORF accuracy improvements from the fall of 2017 to the spring of 2018
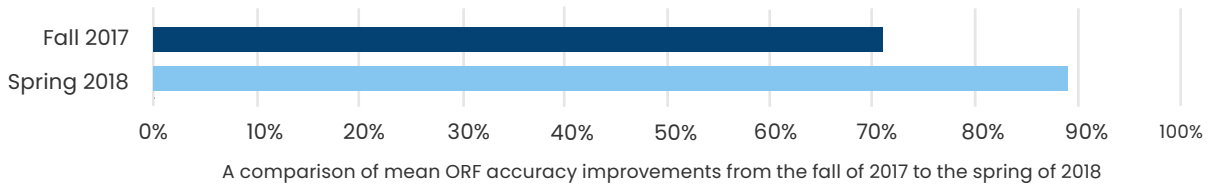
PAIRED SAMPLES T-TEST: ORAL READING ACCURACY GROWTH										
Oral Reading Accuracy Growth	Fall 2017		Spring 2018							
Measure	M	SD	M	SD	n	95% CI for Mean Difference		d	t	df
ORF Accuracy	70.67	14.30	89.00	9.91	18	10.76	25.91	1.20	5.11**	17

*p<.05, **p<.001

As part of the present case study, an implementation survey was provided to the staff at The Freedom School. Six school personnel responded to the survey invitation, including administration, teachers, and school support personnel.

Overall, SPIRE Implementation Survey results indicated a mode response of "agree" or "strongly agree," which corresponded with response values of 4 and 5, respectively. Ease-of-Use and Impact were the factors with the highest reported mode values (strongly agree = 5), followed by Implementation and Professional Development (agree = 4). See Diagram below.

Response patterns with regards to the Implementation factor indicated respondents agreed (response value = 4) that SPIRE fit into the constraints of their literacy programming, it is organized into a teacher-friendly format, the training materials and resources prepared staff to deliver the SPIRE reading program, and SPIRE was easy to integrate into their preexisting literacy curriculum programming. Further, respondents indicated "strongly agree" (response value = 5) when asked whether training materials and resources were easy to access. See Appendix Row 1.

Further, with relation to Ease-of-Use specific items, respondents indicated a mode response pattern of "strongly agree" (response value = 5) on the ability to follow the 10-step lesson sequence, complete the SPIRE placement test, the lesson pacing being appropriate, and the

ease of navigating the SPIRE teacher's guide. See Appendix Row 2.

In terms of the Impact factor, respondents indicated "strongly agree" response patterns (response value = 5) with regards to SPIRE having a positive impact upon their striving readers and that SPIRE meets the needs of their striving readers. See Appendix Row 3.

Finally, when presented with items related to professional development, respondents indicated "strongly agree" (response value = when asked whether the SPIRE professional development prepared the staff member for achieving fidelity implementation with the SPIRE reading program. Further, when asked whether the staff member felt better prepared to deliver multi-sensory reading techniques, respondents indicated "agree" (response value 4). See Appendix Row 4.

SPIRE Implementation Study
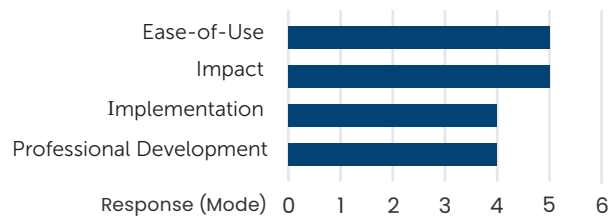
Mode responses for the items that load to each designated factor (Ease-of-Use, Impact, Implementation, & Professional Development). Overall, the strong agreement was most frequently indicated for the Ease-of-Use and Impact factors and agreement was most frequently indicated for the Implementation and Professional Development factors.

Conclusions

Given the scope of the present case study, including paired sample t-tests for significance, effect size, Wilcoxon signed-rank testing, and implementation survey, the SPIRE reading program demonstrates statistically significant improvements to oral reading accuracy and text level. This suggests that not only does exposure to the SPIRE program improve early literacy skill development (alphabetic principle and phonemic awareness), but also addresses vocabulary and comprehension (as evidenced by summative improvements with regard to QRI text level growth). These outcomes, coupled with the reported survey responses on the topic matter of ease-of-use, implementation, impact, and professional development, suggests the SPIRE reading program is a viable and effective intervention for addressing the needs of striving readers.

Appendix

	Response (Mode)
1 | SPIRE IMPLEMENTATION	
It was easy to fit SPIRE into the time constraints of your literacy program	4
SPIRE is organized into a teacher-friendly format	4
SPIRE training materials and resources effectively prepared me (my staff) to deliver the program	4
SPIRE training and resources were easy to access	5
Spire was easy to inegrate into your preexcisting literacy curriculum	4
2 | SPIRE IMPACT	
Growth within SPIRE has aligned with growth in other areas (such asmathematics and social-emotional well-being	4
SPIRE has had a positive impact upon your stuggling readers	5
SPIRE meets the needs of your strugggling readers	5
The skills students learn in the SPIRE program will persist with them throughout their schooling	4
3 | SPIRE EASE OF USE	
I am able to differentiate SPIRE to the needs of my students	4
It is easy to Follow the sequence of the SPIRE 10-step program	5
It was easy to complete the SPIRE Placement Test with my students	5
The Lesson pacing of SPIRE is appropriate for my students	5
The SPIRE teacher's Guide (or online scripting of iSPIRE) is easy to navigate	5
4 | SPIRE PROFESSIONAL DEVELOPMENT	
The SPIRE professional develpment prepared me well for achieving fidelity with SPIRE	5
You (or your staff using SPIRE or iSPIRE) are better prepared to deliver intensive reading instruction using multisensory techniques	4

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