



Arizona State Board of Education

1700 W. Washington Street
Executive Tower, Suite 300
Phoenix, Arizona 85007
Phone: (602) 542-5057
Website: azsbe.az.gov



December 17, 2017

TO: Governor Doug Ducey
Senator Steve Yarbrough
Representative J.D. Mesnard

RE: K-6 Technology-Based Language Development and Literacy Intervention Pilot Program Final Report

Dear Governor Ducey, President Yarbrough and Speaker Mesnard:

Pursuant to A.R.S. § 15-217, the State Board of Education respectfully submits for review a final report on the K-6 Technology-Based Language Development and Literacy Intervention Pilot Program (Pilot Program).

If you have any questions, please contact Alicia Williams, Executive Director of the State Board of Education, at (602) 542-5057.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alicia Williams".

Alicia Williams
Executive Director

Cc: Richard Stavneak, Director, Joint Legislative Budget Committee
Elizabeth Dagle, Analyst, Joint Legislative Budget Committee
Arizona State Library and Archives

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Summary

- Implementation fidelity remained a challenge in the second year of the Pilot Program
- Reading results for enrolled students was mixed
- The Board does not recommend statewide implementation of the Pilot Program

Background

Laws 2014, Chapter 17, directed the State Board of Education to develop a two-year pilot program for K-6 technology-based language development and literacy intervention. The legislation directed the Board to do the following: 1) develop application procedures and selection criteria for school districts and charter schools; and 2) award a contract to one educational technology provider to deliver K-6 technology-based language development and literacy intervention software. The software is required to differentiate instruction for each pupil and meet certain requirements outlined in statute.

At its September 28, 2015 meeting, the Board tasked the Arizona Department of Education's Office of English Language Acquisition Services with carrying out the Pilot Program. Schools were selected to participate in the two-year Pilot Program in the Spring of 2016. In July 2016, the Pilot Program was launched and from August 2016 through May 2017 students enrolled, teachers were trained and progress was monitored. Students were assessed by AZELLA and AzMERIT in April and May of 2017 and 2018.

The Board submitted a progress report to the Joint Legislative Budget Committee in September 2017. The Board is required to submit a final report with a recommendation whether the Legislature should consider statewide implementation of the Pilot Program.

Year 1 - Participation

- 77 participating schools representing 19 local education agencies
- 4 schools dropped out due to school closures, lack of staff or scheduling issues
- 60 schools active
- 320 educators trained
- 296 staff accounts created and active
- 24 training sessions and 79 school support days that included site visits, coaching modeling and mentoring
- 3,326 students enrolled. The students participating in the program include the lowest performing ELL, students who have not been able to test into a basic,

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intermediate or proficient performance classification, students enrolled in Structured English Immersion classrooms and refugee students.

Year 2 – Participation

- 73 participating schools representing 18 local education agencies (see appendix for full list)
- 1 school district dropped out
- 55 schools active
- 356 staff accounts active
- 27 training sessions and 51 school support days that included site visits, coaching, modelling and mentoring
- 3,158 students enrolled. The students participating in the program include the lowest performing ELL, students who have not been able to test into a basic, intermediate or proficient performance classification, students enrolled in Structured English Immersion classrooms and refugee students.

Implementation Fidelity

The following implementation goals were established for the Pilot Program:

Completion Rate	Attendance Rate	Participation Rate
>65%	80-90%	95%

Year 1 – Implementation Fidelity

Completion Rate	Attendance Rate	Participation Rate
52%	58%	69%

Year 2 – Implementation Fidelity

Completion Rate	Attendance Rate	Participation Rate
49%	57%	69%

Participation and attendance were below target levels due to several challenges including:

- Substitute teacher shortage limiting staff availability for training;
- Limited number of teachers to oversee the program effectively;
- A lack of student technology skills especially among refugee students; and
- A lack of access to technology during state testing windows.

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Reading Gains Analysis

Students in the Pilot Program completed a pre-assessment and post-assessment, the Reading Progress Indicator, which determined their initial reading level and their reading level after the Pilot Program.

Below are the results from the Year 1 Progress Report:

Grade Range	Average Grade	Initial Reading Grade Level	Final Reading Grade Level	Reading Gains	Years Between Tests
K to 3	1.5	0.3	0.9	0.6	0.4
4 to 7	4.6	3.0	3.6	0.6	0.5

Below are the results from Year 2:

Grade Range	Average Grade	Initial Reading Grade Level	Final Reading Grade Level	Reading Gains	Years Between Tests
K to 3	1.4	0.2	0.9	0.7	0.5
4 to 7	4.7	3.2	4.3	1.1	0.7

The results indicate a positive impact on reading levels and other data indicates positive impacts when students used more products (see appendix).

The above results do not compare students' progress against a control group and therefore does not control for possible underlying differences between students. For example, students who completed more products may tend to be more motivated or receive more parental support. Additionally, further research is required to determine if or how much of the gains are the result of the Pilot Program or gains the students would have made without the Pilot Program.

To control for some of these factors, an analysis was conducted using AZELLA and AzMERIT scores to provide a more comprehensive comparison of reading gains between participants and non-participants (see appendix for more information). The results of this analysis yielded the following:

- When comparing all eligible students, the difference in assessment outcomes was not statistically significant.

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- When comparing eligible students with moderate use of the program (more than 1 product completed and/or more than 10 hours of Reading Assistant use) to low use and no use students, the results were statistically significant.

Conclusion

Data from the Pilot Program is limited and further research is necessary to fully evaluate the effectiveness of the Pilot Program. Without additional research, a definitive conclusion on the efficacy of the Pilot Program cannot be reached. The data that is available indicates that any meaningful reading gains require moderate to high usage of the program.

Implementation fidelity however was a challenge. Rates of completion, attendance and participation remained well below target; only about 20% of students in one analysis met the targets (note that the analysis does not include all students in the Pilot Program but only those students that also have an AzMERIT and AZELLA score). Rates of completion and attendance fell in year 2 while the participation rate was unchanged.

The primary reasons cited for low implementation fidelity (lack of staff availability, substitute teachers, lack of student technology skills, lack of access to technology during testing windows) would not be resolved if the Pilot Program was statewide. In fact, it is possible those issues would be more acute in districts and charters that have limited resources compared to those that volunteered for the Pilot Program.

Finally, funding the Pilot Program statewide requires mandating a specific reading program. Without compelling evidence that a reading program would result in meaningful reading gains and strong return on investment, allowing local education agencies to make curriculum decisions that best meets the needs of their students would be more in alignment with Arizona's K-12 philosophy.

For these reasons, the Board does not recommend funding the Pilot Program Statewide.

Appendix

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