EDUCATION

THE UTAH STATE BOARD OF EDUCATION

Report to the Education Interim Committee

Interventions for Reading Difficulties Pilot Program Report

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STATUTORY REQUIREMENT

U.C.A. Section 53F-5-203 requires the State Board of Education to make a final report on the program to the Education Interim Committee on or before November 1, 2018. In the final report, the board shall include the results of the independent evaluation which requires evaluation of the program on (i) whether the program improves reading outcomes for a student who receives the specified interventions; (ii) whether the program may reduce future special education costs; and (iii) any other student or school achievement outcomes requested by the board. This report is the final report on this pilot program.

Intervention for Reading Difficulties Pilot Program Report

EXECUTIVE SUMMARY

In the 2015 General Session, the Legislature passed Senate Bill 117, Interventions for Reading Difficulties Pilot Program, which established a reading program to assist students who are at risk for or experiencing a reading difficulty, and to provide professional development to educators who provide literacy interventions. This program was funded with $375,000 one-time from the Education Fund. In Year 2 of the program, the 2017-2018 school year, the grant served five districts serving 14 schools.

Independent evaluators looked at the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and the Student Assessment of Growth and Excellence (SAGE) assessments to determine if students participating in the pilot program had improved reading outcomes. Examining the DIBELS assessment, results show that in Year 1 (2016-2017 school year) from the beginning of the year to the end of the year the percentage of intervention students at or above benchmark more than doubled. In Year 2, the percentage of students at or above benchmark on DIBELS more than tripled from the beginning of the year to the end of the year (see Figure 2 from the independent evaluation on the following page).

To further investigate program effects, the evaluators also examined a subset of students from comparison schools to compare against the intervention students. Using the DIBELS assessment, the researchers found that

the comparison students also made improvements from the beginning to the end of the year, and that there were no statistically significant differences between the two groups at the beginning of the year or at the end of the year (see Figure 3 from the independent evaluation on the following page).

Analyzing results from the SAGE assessment, no significant improvement was found for intervention students from 2015-16 to 2016-17 or from 2016-17 to 2017-18. There were also no significant differences between the intervention and comparison students.

In Year 2 of the pilot program, for professional training for intervention programs, some districts continued to work with the service provider as in Year 1 while others provided district-level training. Overall, 60 percent of participants rated the training an 8 or higher (out of 10) in effectiveness compared to 64 percent in Year 1. However, in Year 2, the mean scores increased slightly, due to a greater proportion of participants rating the training a 10 compared to Year 1.

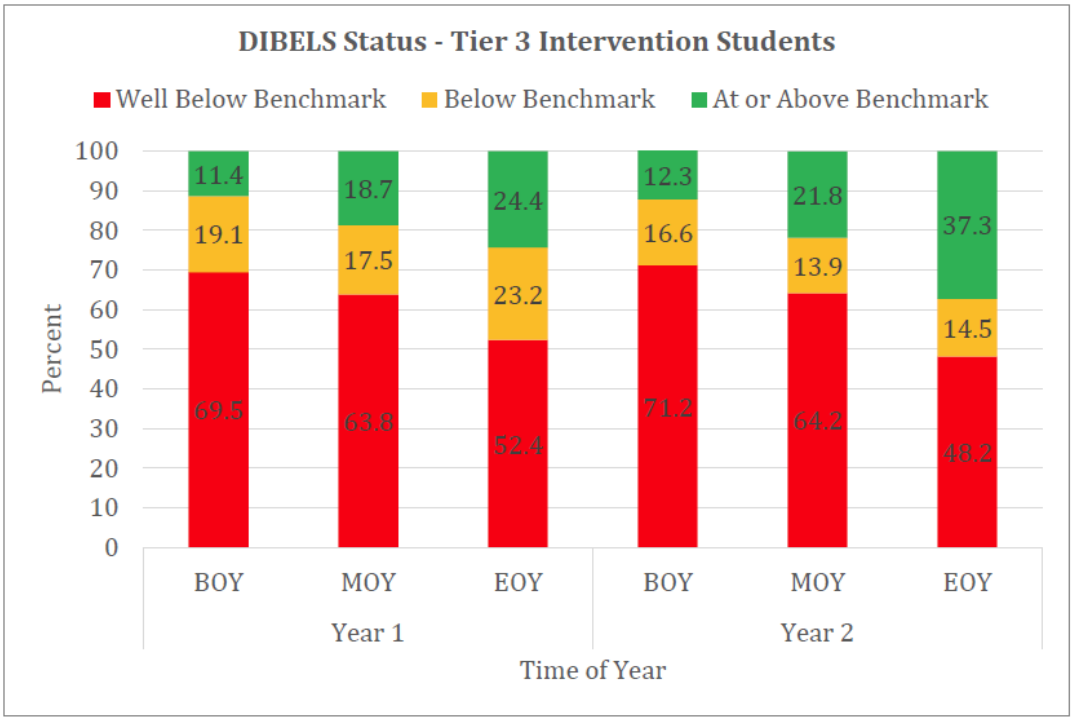

Figure 2. **DIBELS Status – Tier 3 Intervention Students**

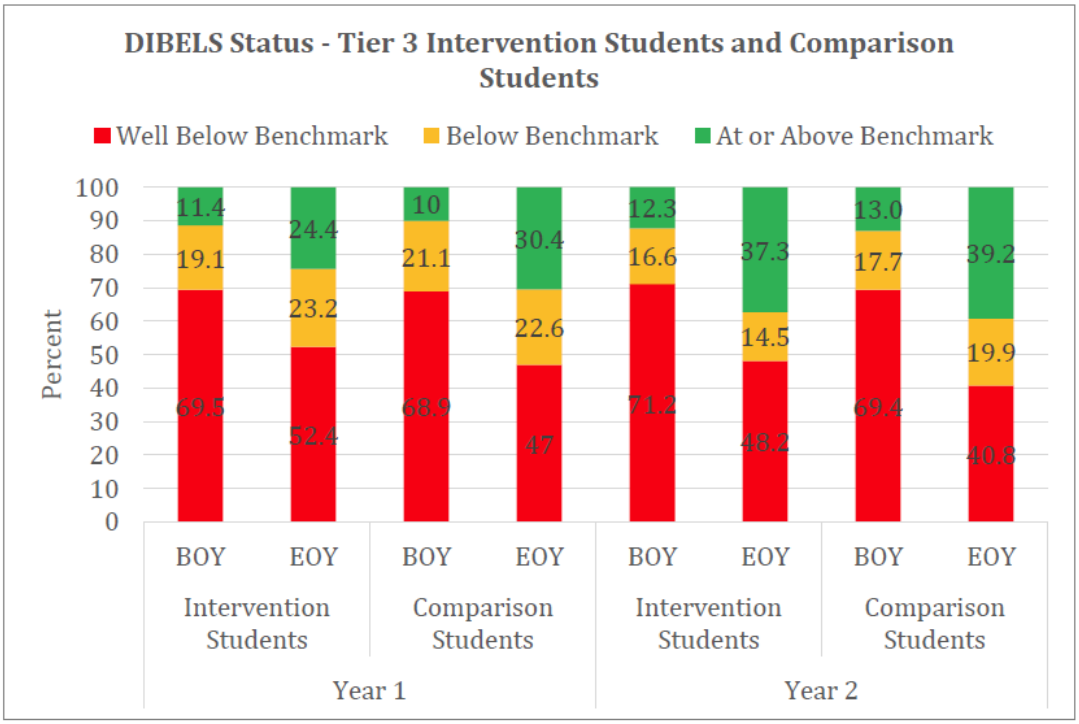

Figure 3. **DIBELS Status – Tier 3 Intervention Students and Comparison Students**

The independent evaluation for Year 2 of this program is attached. It provides additional detail and analyses of the program, its implementation, and findings.

RECOMMENDATIONS

In its October board meeting, the Utah State Board of Education (USBE) voted in support of removing the sunset and continuing the program. Given the results of the program and the knowledge gained due to its implementation, USBE staff recommend continuing the program and expanding its reach. The lessons learned from this pilot program suggest that providing students with high-quality, tiered interventions has a significant impact on their reading achievement. Therefore, continuing to provide this opportunity for additional local education agencies (LEAs) to participate and have access to this funding could impact even more students across the state. Additionally, USBE staff would suggest that grantees be required to attend a mandatory two-day training to mitigate the implementation issues faced by the first cohort of grantees. All LEAs in the grant had significant realizations as part of their participation that affected their implementation and overall system (detailed further in the independent evaluation). The impact of the program could be achieved more quickly if the LEAs had support in advance of their implementation of the grant.

INTERVENTIONS FOR READING DIFFICULTIES PILOT PROGRAM EVALUATION: YEAR 2

SEPTEMBER 30, 2018

Developed on behalf of the
Utah State Board of Education
by Illuminate Evaluation Services

Contents

EXECUTIVE SUMMARY

The Interventions for Reading Difficulties Pilot Program is a three-year grant funded to five districts serving 14 schools in Year 2. The goals of the grant are to:

1) Improve reading outcomes for students in grades K-5 that receive the intervention
2) Reduce future special education costs, and
3) Improve the effectiveness of the professional development provided to educators.

PROGRAM IMPLEMENTATION

In Year 2 of the grant, school and district personnel reported making progress towards these goals. They also identified some unintended outcomes, including refining and developing their Multi-Tiered System of Support (MTSS), which has impacted schools throughout the district, and improving collaboration between general and special education teachers and paraeducators.

In Year 2, implementation has improved as district and school personnel clarified expectations and improved support. Although implementation varied greatly across districts based on the programs selected, who is utilizing the program, grade levels, length of the intervention, and the timing of the intervention, district and building personnel reported greater consistency within the districts. Districts focused on addressing challenges that occurred in Year 1 to improve fidelity of implementation, such as defining the criteria for students entering and exiting the program and developing strategies, structures, and intervention schedules to implement a lesson with fidelity. The outcomes from this work should be apparent in the Year 3 report.

Because implementation has improved, in four of the five districts, teachers and paraeducators reported improved confidence in the program and they believed students were benefitting from the tiered instruction. In the fifth district, there was substantial turnover in participating schools, and they were dealing with some of the Year 1 challenges other districts experienced, which included identifying a structure for the intervention and onboarding teachers.

PROGRAM IMPACT

Evaluators analyzed Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and SAGE data to determine if students participating in Tier 3 Interventions were improving reading outcomes. These analyses should be interpreted cautiously. This is the second year of implementation of the Tier 3 Intervention implementation was limited to a small number of students and some schools had challenges with implementation. In addition, some students were placed in the intervention who were already in the “at or above benchmark” range on the DIBELS or at Level 3 on the SAGE. Furthermore, all districts were already offering interventions for Tier 3 students, albeit this differed greatly. Consequently, students within the comparison schools also likely had some intervention. Finally, district personnel noted that by simply applying for the grant, it increased their understanding of Tier 3 Interventions, which has also impacted their other schools.

Generally, results from DIBELS show that the percentage of intervention students in the “at or above benchmark” category more than doubled in Year 1 from the beginning of the year to the

end of the year and more than tripled from beginning to end in Year 2. Evaluators also analyzed results from a subset of students from the comparison schools who had a similar distribution to intervention students on the DIBELS at the beginning of the year. Both groups made improvements, and there was no significant difference between the two groups at the beginning of the year or at the end of the year for either Year 1 or Year 2. SAGE results showed no significant improvement for intervention students from 2015-16 to 2016-17 or from 2016-17 to 2017-18, and there were no significant differences between the intervention and comparison students.

Evaluators also analyzed results for all students at intervention schools based on the assumption that the professional development may impact literacy instruction schoolwide. In Year 1, results at the beginning of year on the DIBELS showed no significant differences between intervention and comparison schools; at the end of the year, a statistically significant difference did exist, with a higher percentage of students at intervention schools in the at or above benchmark status compared to students at comparison schools. In Year 2, both the beginning and end of the year analyses showed a difference between the two groups, with a higher percentage of students at intervention schools in the "at or above benchmark" status compared to students at comparison schools. SAGE results in Year 1 showed a statistically significantly higher percentage of students at comparison schools met proficiency on the SAGE but no significant difference existed between intervention and comparison schools in Year 2.

Evaluators also analyzed special education qualification data. The percentage of students at Tier 3 Intervention schools qualifying for special education went up from 2015 to 2017, but then decreased slightly in 2018, with an overall increase of .5 percentage points over four years. The percentage of students at comparison schools qualifying for special education has increased every year from 2015 to 2018, with an overall increase of 1.4 percentage points over four years.

The percentage of intervention and comparison students qualifying for Special Education has increased from 2015 to 2018. Overall, from 2015 to 2018 the percent increase for intervention students was 8.5 percentage points, while the increase for comparison students was 7.6 percentage points. While comparison students qualifying for Special Education increased each year, intervention students increased from 2015 to 2016 then decreased from 2016 to 2017, but increased again from 2017 to 2018. Results for this analysis should be interpreted cautiously due to the unequal sample sizes for the groups each year.

District and school personnel agree training for Tier 3 Intervention programs has improved greatly. All districts engaged in training with the service provider during Year 1 of the grant prior to implementing the Tier 3 Intervention program. The intensity of the training varied by program, ranging from a two-day training prior to implementation (Sonday and SPIRE) to a very intensive model (Wilson). In Year 2, some districts continued to work with the service provider while others provided district-level training. In both cases, participants reported that the quality of the training improved because it included more modeling of lessons and implementation strategies, rather than a focus on the structure of the curriculum. Overall, 60% of participants rated the training an 8 or higher out of 10 on an effectiveness scale in Year 2, compared to 64% in Year 1. This rating demonstrates a high level of satisfaction. In addition, although there is a greater spread of scores in 2017-2018, the mean scores have improved slightly, primarily because of a greater proportion of participants rating the training a 10 in Year 2.

District personnel have also improved training and support for implementation. The support varies substantially by district in intensity. For example, one district has provided whole group professional development throughout the year, created an observation schedule where every person implementing the program is observed and has a chance to observe others two to three times a year, and built in opportunities for reflection. In addition, this district created video clips of different steps of the program, implementation strategies, and materials so teachers and paraeducators can access the video clips as needed. Another district has created monthly meetings for principals and instructional facilitators where they learn to support MTSS and their teachers, and a district coach visits each school month for targeted assistance. Two other districts have school-level instructional facilitators who provide additional support through professional development, modeling and observing of lessons, and reviewing data. Both districts have opportunities for paraeducators and teachers to meet during Professional Learning Communities to discuss the data. Finally, one district is continuing to work with the service provider, in an intensive program. In addition to this, a representative from the USBE has also provided targeted technical support to the districts. Overall, participants were pleased with the additional support provided by the district and state, noting that this was a change in practice.

CONTEXTUAL FACTORS

Several contextual factors support and hinder implementation of the Interventions for Reading Difficulties Pilot Program. These include leadership commitment, teacher buy-in, time, reliance on paraeducators, and behavioral issues.

BEST PRACTICES

There are a number of emerging best practices that are in development. These include the use of data, ongoing embedded professional development, the development of an MTSS, and the implementation of an intervention period.

RECOMMENDATIONS

Based upon these findings, we provide the following recommendations: (1) continue to address existing challenges; (2) develop a clearly articulated MTSS within each district; (3) develop a plan for teachers to implement or learn the program; (4) develop an intervention period within the master schedule in the schools implementing the Tier 3 Intervention program; (5) provide classroom management strategies to paraeducators; (6) share resources and learning across districts; and (7) evaluate the continued use of the Wilson program.

INTERVENTIONS FOR READING DIFFICULTIES PILOT PROGRAM EVALUATION: YEAR 2

Introduction

The purpose of this report is to provide formative and summative feedback to the Utah State Board of Education (USBE) regarding evidence of implementation and impact for the Interventions for Reading Difficulties Pilot Program. The report, while addressing the effects of the Interventions for Reading Difficulties Pilot Program, is also designed to provide formative feedback to assist in ongoing program development. This report includes information on the 2016-2017 and 2017-2018 school years, which is referred to as Year 1 and Year 2, respectively. The report includes a description of the evaluation design, evaluation findings, conclusions, and recommendations.

Evaluation Design

To align with the objectives of this study, we implemented a quasi-experimental, longitudinal, mixed-methods research design. This rigorous design provides information on the implementation and impact of Interventions for Reading Difficulties Pilot Program. The collection of both quantitative and qualitative data adds scope and breadth to the study in addition to providing the ability to triangulate findings. The interrupted time-series analysis (longitudinal design) helps to demonstrate impact of the treatment by analyzing data prior to the intervention and then comparing results after the intervention. Finally, the use of comparison groups enhances the ability to identify impact. A description of the evaluation questions, participants, and data sources is provided below.

EVALUATION QUESTIONS

The following questions, as identified in the proposal and work plan, guided the evaluation:

1) What are the intended activities, goals, and outcomes for program implementation?
2) To what extent did program implementation occur as planned?
3) To what extent are reading outcomes for students in grades K-5 that receive intervention improving?
4) To what extent do student assessment scores differ between those served in Local Education Agencies (LEAs) participating in the Interventions for Reading Difficulties Pilot Program and those served in the comparison schools?
5) To what extent do special education placements differ between those served in LEAs participating in the Interventions for Reading Difficulties Pilot Program and those served in the comparison schools?
6) To what extent do the professional development opportunities support teacher and student outcomes?
7) What are the contextual factors influencing the Interventions for Reading Difficulties Pilot Program implementation?
8) What are the best practices identified in the Interventions for Reading Difficulties Pilot Program?
9) What recommendations emerge based on evaluation findings?

PARTICIPANTS

Five districts have participated in the Interventions for Reading Difficulties Pilot Program. In Year 1, the USBE identified comparison schools using English Language Arts (ELA) SAGE 2015 and 2016 results utilizing the Gowers Similarity Coefficient. This methodology resulted in several matches based on performance. The final comparison schools were then selected based on demographics and willingness to be a matched school. The analyses did not include enough matched schools for Provo School District, and ultimately, a comparison school was selected from Alpine School District.

In Year 2, there were several changes in participating schools, which resulted in the need to identify additional comparison schools. One school in Provo School District and both schools in Tooele School District dropped out of the grant because of leadership changes or lack of staff commitment. In addition, all schools in Cache County are now implementing the intervention, and consequently, comparison schools were identified from Logan School District. Using the same methodology from Year 1, the comparison schools were identified using the ELA SAGE 2017 results. The Year 1 and Year 2 schools are listed in Table 1.

Table 1.
Participating and Comparison Schools

Year 1		
District	**Participating Schools**	**Comparison Schools**
Box Elder	Discovery	Fielding
Box Elder	Three Mile Creek	Foothill
Cache	Canyon	Park
Cache	Lincoln	Lewiston
Cache	North Park	Providence
Cache	Wellsville	Mountainside
Davis	Layton	Clinton
Provo	Edgemont	Rock Canyon
Provo	Franklin	Hilcrest (Alpine School District)
Tooele	Sterling	Northlake
Tooele	West	Settlement Canyon
Year 2		
District	**Participating Schools**	**Comparison Schools**
Box Elder	Discovery	Fielding
Box Elder	Three Mile Creek	Foothill
Cache	Canyon	Woodruff (Logan School District)
Cache	Lincoln	Adams (Logan School District)
Cache	North Park	Hillcrest (Logan School District)
Cache	Wellsville	Wilson (Logan School District)
Davis	Layton	Clinton
Provo	Canyon Crest	Orem (Alpine School District)
Provo	Franklin	Hillcrest (Alpine School District)
Tooele	Copper Canyon	Sterling
Tooele	Dugway	Settlement Canyon
Tooele	Overlake	Middle Canyon
Tooele	Rose Springs	Stansbury Park
Tooele	Willow	Old Mill

Table 2 details the demographics of the participating schools and the comparison schools as reported on the USBE enrollment counts for October 1, 2016 (Year 1 schools) and for October 2, 2017 (Year 2 schools). In Year 1, the participating schools tend to be larger and have more Hispanic students, students receiving free/reduced lunch, and English Language Learners. In Year 2, the schools are more closely matched with some minor fluctuations.

Table 2.
Demographics of Participating and Comparison Schools

Year 1 – Demographics		
District	**Participating Schools**	**Comparison Schools**
Enrollment	565	502
American Indian	.8%	.6%
African American/Black	.9%	.9%
Asian	.7%	.8%
Hispanic	16.0%	9.5%
Multiple Race	1.8%	1.9%
Pacific Islander	1.1%	1.1%
White	78.7%	85.2%
Free/Reduced Lunch	42.2%	36.8%
Special Education	14.3%	13.3%
English Language Learner	7.8%	3.8%
Year 2 - Demographics		
District	**Participating Schools**	**Comparison Schools**
Enrollment	495	493
American Indian	1.1%	.5%
African American/Black	.9%	.9%
Asian	.6%	1.7%
Hispanic	15.3%	15.7%
Multiple Race	1.9%	2.1%
Pacific Islander	.9%	1.4%
White	79.1%	77.7%
Free/Reduced Lunch	39.1%	41.9%
Special Education	13.5%	14.1%
English Language Learner	7.2%	7.1%

To determine the impact of the intervention, evaluators collected information on students participating in the Tier 3 program in each of the districts. The highest number of students are participating in the Sonday Program, while the fewest number are participating in Wilson (see Table 3). In Year 2, students participating in these Tier 3 Intervention programs come primarily from five schools within three districts (see Table 4). While additional students were identified as participating in the programs, they could not be matched to the state dataset. Consequently, the information in Tables 3 and 4 only include students who could be matched. In many cases, students could not be matched to the state data because of missing or incorrect identification numbers. Our team will continue to work with the districts to improve this next year.

Table 3.
Intervention Program Participation

	Year 1	
	N-size[1]	**Percent of Intervention Group**
SPIRE	111	45.1%
Sonday	129	52.4%
Wilson	6	2.4%
	Year 2	
	N-size[1]	**Percent of Intervention Group**
SPIRE	86	36.6%
Sonday	142	60.4%
Wilson	7	3.0%

[1]Only includes students who could be matched to state database.

Table 4.
Sample Size by School

		Year 1	
District	**School**	**N-size[1]**	**Percent of Intervention Group**
Box Elder	Discovery	53	22.8%
	Three Mile Creek	58	23.6%
Cache County	Canyon	3	1.2%
	Lincoln	2	.8%
	North Park	6	2.4%
	Wellsville	6	2.4%
Davis	Layton	77	31.3%
Provo	Edgemont	11	4.5%
	Franklin	23	9.3%
Tooele	Sterling	4	1.6%
	West	2	.8%
		Year 2	
District	**School**	**N-size[1]**	**Percent of Intervention Group**
Box Elder	Discovery	40	17.0%
	Three Mile Creek	31	13.2%
Cache County	Canyon	2	0.9%
	Lincoln	4	1.7%
	North Park	2	0.9%
	Wellsville	7	3.0%
Davis	Layton	97	41.3%
Provo	Canyon Crest	24	10.2%
	Franklin	21	8.9%
Tooele	Cooper Canyon	0	0.0%
	Dugway	0	0.0%
	Overlake	3	1.3%
	Rose Springs	1	0.4%
	Willow	3	1.3%

[1]Only includes students who could be matched to state database.

DATA SOURCES

To answer the evaluation questions, the following data sources and evaluation tools were used.

Program documents, existing reports, and data. We reviewed documents and data pertaining to the implementation of the Interventions for Reading Difficulties Program provided by district and school personnel.

Interviews and focus groups. We conducted interviews and focus groups at a total of nine sites (two sites/district and one site at Davis). During site visits, we interviewed district personnel supporting the grant, the principal, teachers and/or paraeducators implementing the program, and instructional facilitators. In Year 2, 61 people participated in interviews and focus groups. We also observed implementation of the program.

Demographic and assessment data. We collected data from the USBE. The data included Dynamic Indicators of Basic Early Literacy Skills (DIBELS), ELA SAGE results, and demographics. We collected data from the 2014-15 through the 2017-2018 school years.

Evaluation Findings

The evaluation findings are organized below according to the evaluation question. The results include both qualitative and quantitative data, where appropriate.

WHAT ARE THE INTENDED ACTIVITIES, GOALS, AND OUTCOMES FOR PROGRAM IMPLEMENTATION?

The Intervention for Reading Difficulties Pilot Program intended goals are to:

1) Improve reading outcomes for students in grades K-5 that receive the intervention
2) Reduce future special education costs, and
3) Improve the effectiveness of the professional development provided to educators.

The required activities of the grant included adopting a Tier 3 Intervention program, developing an implementation strategy, and providing professional development and support to teachers and paraeducators utilizing the program.

Across school districts, participating personnel were aware of the goals of the grant, specifically to improve reading outcomes and reduce special education referrals. One person described, "I would say it is to get the students on the program to be successful, to close the gap, and to target their needs and have a positive outcome." Another shared,

> Our goal is to provide reading instruction to students who are struggling and not making progress. We needed a program that was intense, scripted, and different than we had before. Our outcome is to increase students' reading to get back on grade level.

School personnel also agreed, that if they are successful in improving reading outcomes, they will decrease special education referrals. One person shared, "We want less special education

referrals. We have looked hard at Tier 1, 2, and 3 instruction. Last year, we focused on Tier 1 and now we are focusing on Tier 2 and 3 as a whole." A teacher reflected,

> For me, I would like to keep as many children in class as possible. I don't like pullouts, and special education isn't extra tutoring. This is for kids who have holes in their reading skills, and we want to fill as many holes as we can before putting a label on the kids.

The reading difficulties grant included the reading program materials and the professional development to strengthen reading instruction. Teachers and paraeducators who attended the training noted that it is helping them better serve students struggling in reading but that it is also improving reading instruction for all children. One educator said, "This is the reading difficulties grant to provide professional development to support students with reading difficulties, with a special attention to dyslexia." Another countered, "This program is designed to strengthen professional development for all three tiers, and I see my Tier 1 students benefitting also." An administrator reflected, "It is one of the few programs to help increase strategies for teachers. We have focused on textbooks in the past. This is the only program the district has offered to increase teachers' skill level." Teachers, who have participated in the training, reported that they are using some touch-spell techniques, sound and writing work, and phonological awareness techniques within their core classroom.

In addition to these three goals, school personnel identified two additional outcomes that have emerged by participating in the grant. First, personnel from all districts indicated the implementation of the program and support provided by the grant and the district has helped clarify the purpose of tiered instruction and has helped the district to refine their Multi-Tiered System of Support (MTSS) and to clarify expectations for tiered instruction across all schools in the district. One person shared, "We are speaking the same language. I assumed we knew what Tier 2 was, but I would say that was our biggest gap. People defined it differently. We couldn't start the discussion until we understood Tier 2 and 3." Because of this work, three districts have developed flow charts or a model for their MTSS system. Although the charts vary in design and complexity, most include a distinction of programs used for Tier 2 and 3 by grade level. The other districts are in process of developing a criteria for placement and a structure for the intervention (e.g., amount of time, number of days/week). Figure 1 shows an example of a flow chart created by one of the districts. Several districts created robust professional development training programs to support implementation of the MTSS. These will be described further in the report.

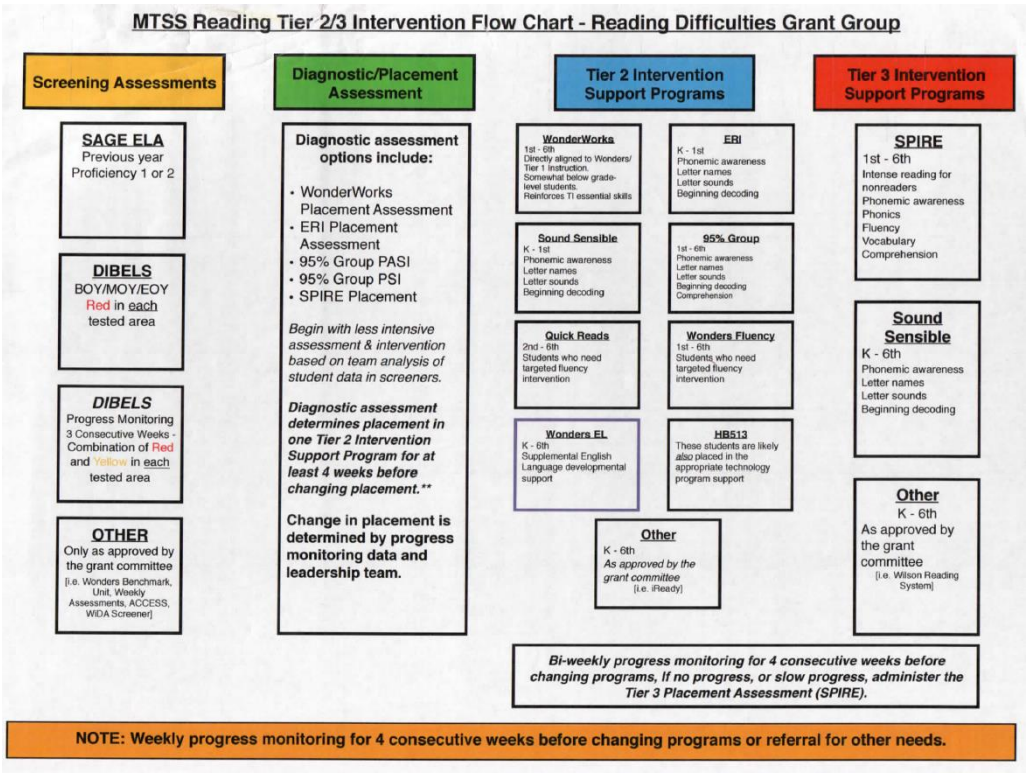

Figure 1. **MTSS Tiered 2/3 Reading Flow Chart – District Example**

The second emerging outcome is improved collaboration and coordination amongst general education and special education teachers and paraeducators. As the distinction of the different tiers becomes clear and as groupings become more fluid, school personnel indicated that it is imperative to include all groups to collaborate. A school leader shared, "We are improving collaboration; there is a willingness to look at other interventions if something isn't working." The frequency and structure of these opportunities vary across districts. However, the purpose is fairly consistent: to look at data, to discuss the intervention strategies, and to discuss student behavior issues. In addition, one district implemented a collaboration period for the paraeducators and instructional coach, where they can discuss their students' needs, move students across groups, and change groupings if behavior issues arise. A district leader reflected, "The collaboration is critical. This is helping to ensure we are looking at data and discussing student progress, rather than assigning the student to an intervention for the year."

TO WHAT EXTENT DID PROGRAM IMPLEMENTATION OCCUR AS PLANNED?

The first year of implementation varied greatly across districts, and there were differences in implementation based on the programs selected, the screening tools, who is utilizing the program, grade levels served, length of the intervention, and the timing of the intervention. At times, implementation varied across schools within the same district. Table 5 summarizes some of these differences by district for Year 2.

Table 5.
Implementation Strategy by District

Interventions for Reading Difficulties Pilot Program Implementation Strategies					
District	**Box Elder**	**Cache County[1]**	**Davis**	**Provo**	**Tooele[2]**
Program	Sonday	Sonday	SPIRE	SPRIRE	Wilson
Screening Tools	DIBELS Box Elder Phonics Assessment Sonday Placement Test	DIBELS	DIBELS	DIBELS SAGE STAR	DIBELS Wilson Assessment
Teacher/ Paraeducator	Certificated/ Paraeducators (Varies by grade level, number of students served, and teacher interest)	Resource teachers/ Paraeducators	SPIRE Mentors (Certificated[3]/ Paraeducators)	Paraeducators/ Certificated (less frequent)	Certificated
Grade level	Varies 2nd through 5th	2nd through 6th	K through 5th	Varies K through 6th 4th through 6th	4th grade
Length of Intervention	4 days/week 30 min/day	5 days/week 30 to 35 min/day	4 days/week 30 min/day	Varies 4 to 5 days/week 30 min to 60 min/day	2 to 3 days/week 1.5 hrs/day
Timing of Intervention	School day	School day	Intervention Period	Intervention Period	Before/After School

[1]Cache County is using this as a Tier 3 and special education program.
[2]Although five schools are participating, two are receiving training in SPIRE, and have not had students participate in the program.
[3]Expired or out-of-state certificates.

Districts generally use a combination of paraeducators and teachers to implement the Tier 3 program. Tooele School District utilizes certificated teachers, as that is one of the requirements of the Wilson program. Cache County School District previously used resource teachers only; however, they have now trained paraeducators, as well, so more students can participate in the program. The paraeducators implement the program in the same room as the resource teacher to ensure assistance is available, if necessary. Box Elder and Provo school districts primarily implement the program with paraeducators; however, certificated staff members are trained and implement the program based on interest and need. Davis School District utilizes paraeducators, but two hold expired/out-of-state licenses. While school leaders noted that it is beneficial to have certificated teachers implement the program, the use of paraeducators allow the schools to offer more slots and more flexibility for programming. To provide the paraeducators support, they have offered more professional development and collaboration time.

Grade levels vary as well based on implementation strategies. Davis and Provo school districts have implemented an intervention period for all students, and subsequently, all grade levels have students participating in the Tier 3 program. Personnel from these districts noted that since all students go to an intervention, whether it is to provide extra challenge, Tier 2, or Tier 3 support, there is "less stigma" and students are not missing "fun" classes or core instruction. Box Elder and Cache County school districts focus on students in second grade and above. District and school personnel reported they have strong programs in place for kindergarten and 1st grade students, and they are targeting the support to the older students. Tooele School District is implementing Wilson, which requires intense training the first year and a practicum with one student. To ensure teachers learn a broad spectrum of the program, they have targeted students in 4th through 6th grades. Four of the five districts offer the program during the school day, while Tooele offers it after schools because each session lasts about 1.5 hours and focused on one student. In order to participate, the students must have transportation.

In Year 1, district and building personnel noted that they struggled identifying the appropriate students for the Tier 3 intervention. Several schools utilized SAGE results the previous year in order to begin implementing the program quickly, while others selected students based on teacher recommendations with limited data. In Year 2, the PreK-12 Literacy and Library Media Coordinator, from the USBE provided targeted support to help schools and districts develop targeted strategies to select students for Tier 3 support. While this process took some time and some schools were still placing students inaccurately, by the end of Year 2, district and school personnel decided to utilize DIBELS as the first source of data and triangulate the results with other data sources. For example, Davis School District worked through this process, and developed a new data-driven identification process by spring 2018. Provo School District changed their policy to implement DIBELS across all grade levels. One person said,

> The grant pushed us to get the districts to provide DIBELS, grades 3 through 6. We have it K – 6 now, and that has helped people use data more instead of the upper grades basing decisions on SAGE. Now it is trajectories and ongoing assessment.

Table 6 shows the percent of students who were at or above benchmark on the Beginning of Year (BOY) DIBELS and were receiving a Tier 3 intervention. For reference, we have also included the percent of students at or above benchmark on the BOY and not receiving the intervention. Two schools had a large portion of students receiving the intervention who were at benchmark. As stated above, Davis School District has revised their process. In addition, Canyon Crest, in the Provo School District was new to the program this year and dealing with some of the same the Year 1 implementation issues other schools worked through in their first year. Their process for identifying students should be improved by Year 3, as district and school leaders worked with the team to improve the identification process.

Table 6.
Percent of Intervention and Non-Intervention Students At or Above Benchmark

Year 2			
District	**School**	**% of intervention students at or above benchmark on BOY DIBELS**	**% of non-intervention students at or above benchmark on BOY DIBELS**
Box Elder	Discovery	0%	78%
	Three Mile Creek	5%	84%
Cache County	Canyon	0%	72%
	Lincoln	0%	73%
	North Park	0%	79%
	Wellsville	0%	75%
Davis	Layton	19%	83%
Provo	Canyon Crest	29%	91%
	Franklin	0%	52%
Tooele	Cooper Canyon		
	Dugway		
	Overlake	0%	65%
	Rose Springs	0%	67%
	Willow	0%	62%

With the structure largely in place, Year 2 has focused more on implementation. All districts were trying to increase support for implementation and were addressing implementation challenges that occurred in Year 1. For example, Box Elder School District did not purchase readers for their schools. One school purchased some of the readers and then worked with the special education department to identify other readers to support the program. The other, however, did not have the readers, and paraeducators choose readers if there was time left during the intervention period. However, often there was not time, so the reading portion of the program was not completed. In addition, several schools indicated that the 30-minute timeslot was not enough time to complete a lesson, so they were splitting it over the course of two days or omitting parts of the lesson. Personnel in those schools were problem solving to add additional time for the intervention by Year 3 to ensure one lesson could be completed within a session.

Finally, the Tooele School District has had difficulty gaining buy-in for the program because of the intense training requirements. As such, both schools dropped out of the grant from Year 1 and five new schools joined the grant in Year 2. Two schools, however, are planning to implement SPIRE instead of Wilson, and they focused on training in Year 2 rather than implementation. It is anticipated that all schools will move forward with the grant in the next year.

Overall, district and school leaders from four of the five districts noted that implementation has improved substantially as they clarified expectations and improved support. Because implementation has improved, teachers and paraeducators reported having more confidence in the program, and they believed students were benefitting from the tiered instruction. One person

said, “We are much better aligned … The teachers are on board now that they realize the need to pick the students this program was meant for.” One person described teachers’ reaction: They are very happy, maybe relieved, because they have a confidence that their students are being pulled to do a research-based program. They have a level of confidence in the program.” The fifth district, however, had substantial turnover in the schools that were participating in the grant, and they were dealing with some of the Year 1 challenges, which included identifying a structure for the intervention and onboarding teachers.

TO WHAT EXTENT ARE READING OUTCOMES FOR STUDENTS IN GRADES K-5 THAT RECEIVE INTERVENTION IMPROVING?

Evaluators analyzed data provided by the USBE to assess impact of the Intervention for Reading Difficulties Pilot Program. All analyses in this section and through the remainder of the report should be interpreted cautiously. This was the second year of implementation of the Tier 3 Intervention. Implementation was limited to a small number of students, and some schools had challenges with implementation as described above. Furthermore, all districts were already offering some intervention for Tier 3 students, albeit this differed greatly. Consequently, students within the comparison schools also likely had some intervention. Finally, district personnel noted that by simply applying for the grant, it increased their understanding of Tier 3 Interventions, which has also impacted their other schools.

Overall, district and school personnel reported seeing gains in students participating in the Tier 3 Intervention program, with a small number of students testing out of special education. In addition to reading gains, school personnel also reported seeing improvements in students’ confidence. They believe the combination of students feeling successful and being with other students who have similar reading challenges makes students more willing to engage in the program and focus on reading improvement. One person shared,

> The students who really need it, they enjoy it and it builds confidence because it is filling the holes that they need. The lightbulb is going on. I think there is a component in SPIRE that connecting the spelling, sounds, and practicing of the cards helps to solidify the sounds and letters. It is hitting the basics. It is thorough enough, and they have a greater understanding. It is methodical.

For the following analyses, researchers matched Tier 3 Intervention student participation data provided by each district to state demographic and assessment data, including both DIBELS and SAGE data. The analyses only include students who were able to be matched to the state database using their state or school identification numbers.

DIBELS

Students participating in Tier 3 Interventions were administered the DIBELS assessment at the beginning (BOY), middle (MOY), and end (EOY) of the school year. Figure 2 displays the percentage of intervention students falling into each assessment category during each time period for both Year 1 (2016-17) and Year 2 (2017-18) of the grant. The percentage of students in the “at or above benchmark” category more than doubled in Year 1 from the beginning of the year to the end of the year and more than tripled from beginning to end in Year 2. A chi-square

analysis of the percentage of students falling into each category for the beginning of the year compared to the end of the year was statistically significant for both years (*chi-square* = 99.3, $p < .01$; *chi-square* = 27.5, $p < .001$). Additionally, a paired samples *t*-test using beginning and end of the year composite scores showed a statistically significant improvement in mean score for both years ($t = -22.2$, $p < .01$; $t = -16.6$, $p < .001$).

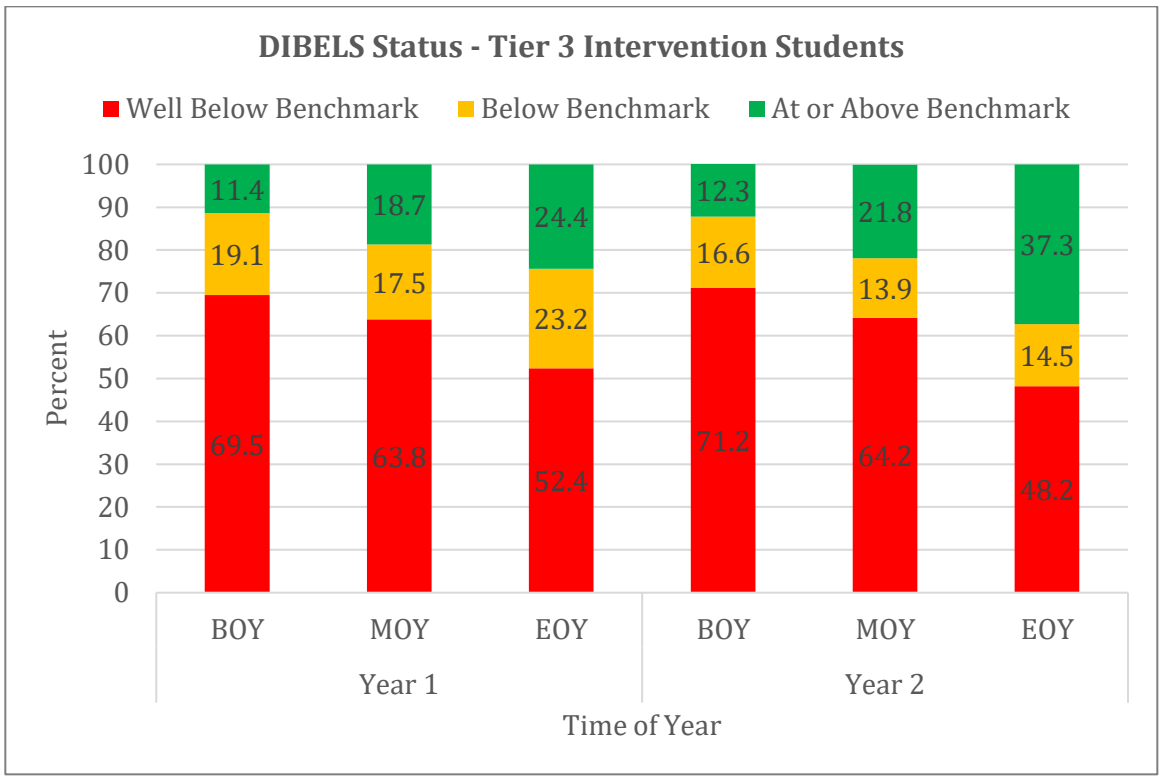

Figure 2. **DIBELS Status – Tier 3 Intervention Students**

Table 7 displays the percentage of students falling into each category at the beginning and end of the year disaggregated by grade level. In Year 1, the largest increase in the percentage of students at or above benchmark occurred at the kindergarten level, while 3rd grade had the smallest increase. In Year 2, once again the largest increase in the percentage of students at or above benchmark occurred at the kindergarten level, but this year the smallest increase was at the 1st grade level.

Table 7.
DIBELS Status – Tier 3 Intervention Students by Grade Level

		Year 1	
Grade Level[1]	**Status**	**BOY**	**EOY**
Kindergarten	Well Below	52.9%	5.9%
	Below	23.5%	17.6%
	At or Above	23.5%	76.5%
1st	Well Below	63.2%	36.8%
	Below	21.1%	26.3%
	At or Above	15.8%	36.8%
2nd	Well Below	85.7%	77.8%
	Below	7.9%	11.1%
	At or Above	6.3%	11.1%
3rd	Well Below	74.6%	58.7%
	Below	14.3%	28.6%
	At or Above	11.1%	12.7%
4th	Well Below	67.5%	50.0%
	Below	22.5%	20.0%
	At or Above	10.0%	30.0%
5th	Well Below	52.5%	35.0%
	Below	32.5%	40.0%
	At or Above	15.0%	25.0%
		Year 2	
Grade Level[1]	**Status**	**BOY**	**EOY**
Kindergarten	Well Below	71.0%	24.2%
	Below	25.8%	15.2%
	At or Above	3.2%	60.6%
1st	Well Below	44.8%	48.3%
	Below	31.0%	13.8%
	At or Above	24.1%	37.9%
2nd	Well Below	58.3%	54.1%
	Below	16.7%	5.4%
	At or Above	25.0%	40.5%
3rd	Well Below	88.4%	58.1%
	Below	4.7%	16.3%
	At or Above	7.0%	24.6%
4th	Well Below	100.0%	64.3%
	Below	0.0%	21.4%
	At or Above	0.0%	14.3%

[1]Results for 6th grade in Year 1 and for 5th and 6th grade in Year 2 are not displayed since there were less than 10 students.

Researchers also investigated the percentage of students falling into each category at the beginning and end of the year by intervention program (see Table 8). The Wilson program is not included since there were under 10 students participating each year. In Year 1, a chi-square analysis of the percentage of students falling into each category for the beginning of the year by intervention program was not statistically significant, but the end of the year comparison was

statistically significant (*chi-square* = 7.09, $p < .05$), with a higher percentage of students at or above benchmark at the end of the year in the SPIRE program compared to the Sonday program. In contrast, in Year 2, the percentage of students falling into each category at the beginning of the year by intervention program was statistically significant (*chi-square* = 23.42, $p < .001$), with a higher percentage of students well below benchmark at the beginning of the year in the Sonday program compared to the SPIRE program. The end of the year comparison was also statistically significant (*chi-square* = 11.16, $p < .01$), with a higher percentage of students at or above benchmark at the end of the year in the SPIRE program compared to the Sonday program. Although, a higher percentage of students were at or above benchmark in the SPIRE program, about 30% of the students in the Sonday program moved up from well below benchmark to below or at or above benchmark by the end of the year.

Table 8.
DIBELS Status – Tier 3 Intervention Students by Intervention Program

		Year 1	
Intervention Program[1]	**Status**	**BOY**	**EOY**
SPIRE	Well Below	74.8%	52.3%
	Below	13.5%	18.0%
	At or Above	11.7%	29.7%
SONDAY	Well Below	66.7%	54.3%
	Below	23.3%	28.7%
	At or Above	10.1%	17.1%
		Year 2	
Intervention Program[1]	**Status**	**BOY**	**EOY**
SPIRE	Well Below	59.0%	41.7%
	Below	22.9%	12.0%
	At or Above	18.1%	46.3%
SONDAY	Well Below	96.2%	65.4%
	Below	1.9%	15.4%
	At or Above	1.9%	19.2%

[1]Results for the Wilson program are not displayed since under 10 students participated each year.

To investigate this question further, researchers selected a subset of students from the comparison schools to serve as comparison students for the intervention students. The comparison students were chosen based primarily on having a similar distribution on each DIBELS status category on the beginning of the year assessment. Table 9 displays a comparison between the intervention student group and the comparison student group based on several key characteristics. For each year, the comparison student group had a lower percentage of students who were English Learners and a lower percentage qualifying for Special Education than the intervention student group. Figure 3 displays the percentage of students falling into each category during the beginning of the year and the end of the year for 2016-17 and for 2017-18 for intervention and comparison students. Both groups made improvements and a chi-square analysis showed no difference between the two groups at the beginning of the year or at the end of the year for either 2016-17 or 2017-18.

Table 9.
Sample and Comparison Characteristics

	Year 1	
	Tier 3 Intervention Students	**Comparison Students**
N-size	246	509
Gender	50.4% female 49.6% male	48.3% female 51.7% male
Low Income Status	49.6%	48.1%
English Learner Status	17.9%	10.2%
Special Education Status	32.9%	30.6%
	Year 2	
	Tier 3 Intervention Students	**Comparison Students**
N-size	235	1263
Gender	50.2% female 49.8% male	49.0% female 51.0% male
Low Income Status	46.0%	46.8%
English Learner Status	22.6%	16.5%
Special Education Status	34.5%	31.4%

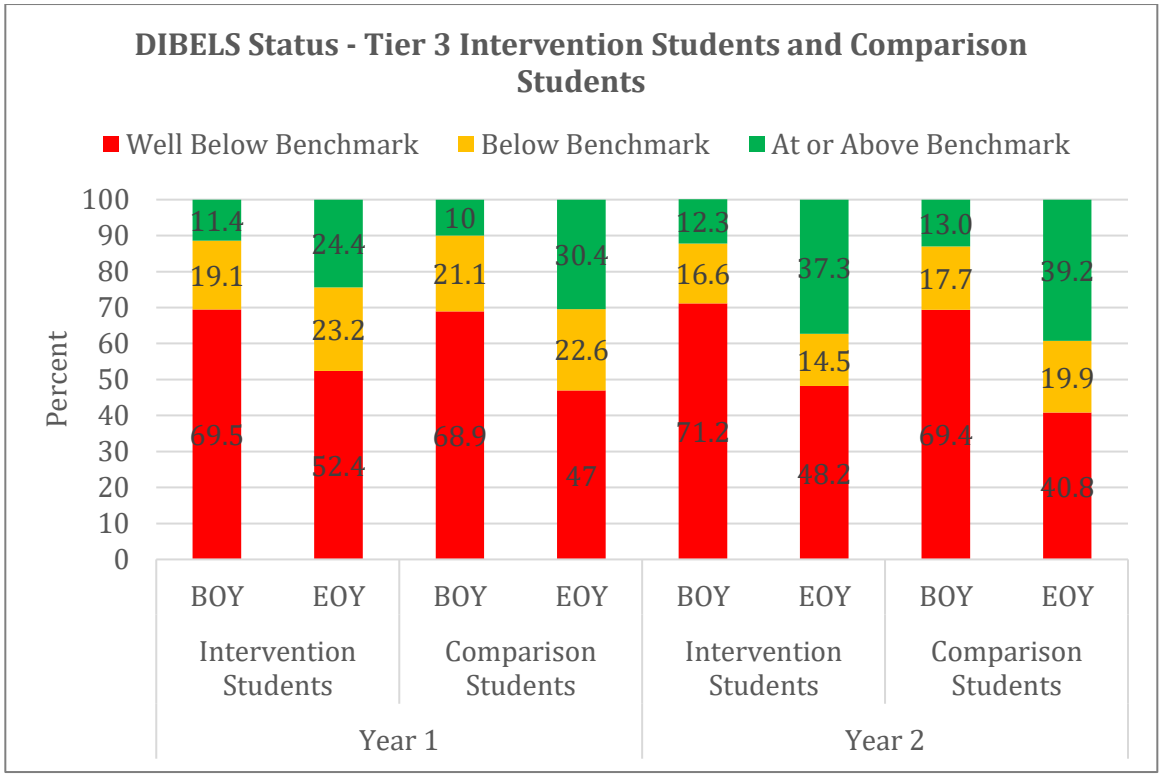

Figure 3. **DIBELS Status – Tier 3 Intervention Students and Comparison Students**

SAGE

The state assessment department provided SAGE data for English Language Arts for several school years. Figure 4 displays the percentage of intervention students at each of the four proficiency levels for the 2016-17 (n=138) and 2017-18 (n=128) school years. About 7% of intervention students met proficiency on the SAGE in 2016-17, while about 12% met proficiency in 2017-18.

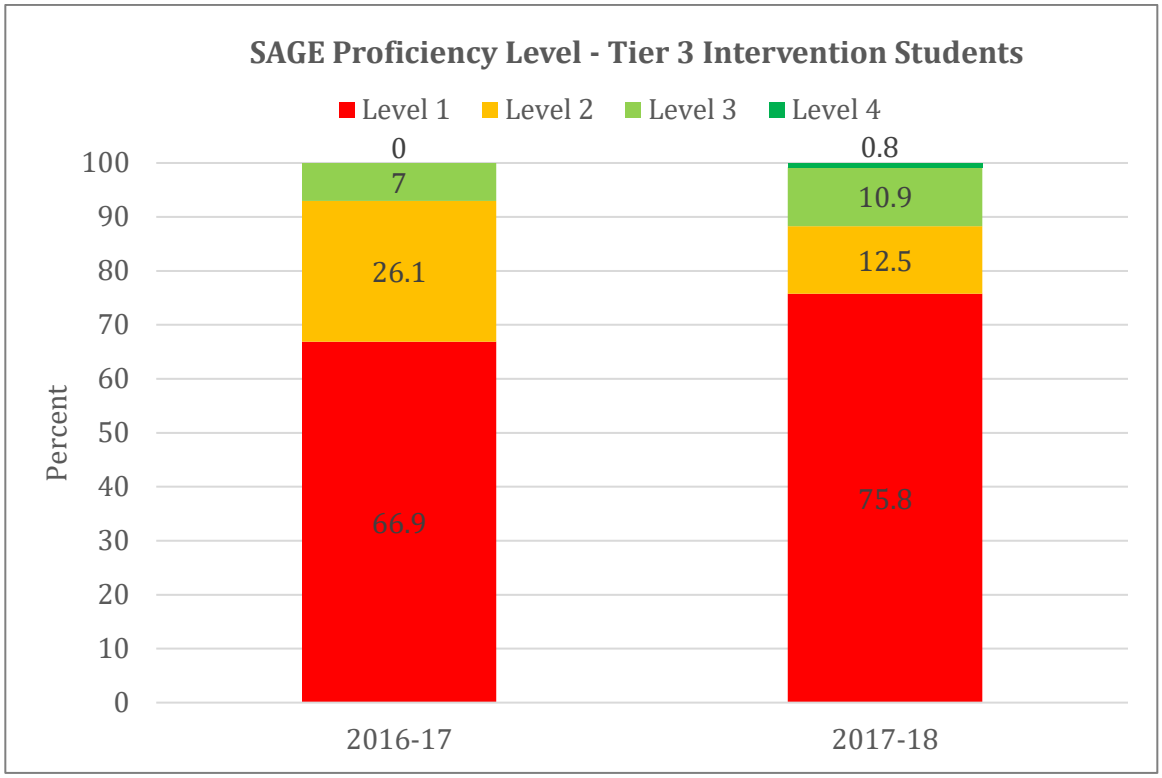

Figure 4. **SAGE Proficiency Level – Tier 3 Intervention Students – 2016-17 & 2017-18**

Evaluators investigated improvement over time in Year 1 by examining proficiency for intervention students taking the assessment in both 2015-16 and 2016-17 (n=62). Figure 5 displays the percentage of intervention students at each of the four proficiency levels for 2015-16 and for 2016-17. Although a higher percentage of intervention students met proficiency in 2015-16, a lower percentage of students fell into Level 1 in 2016-17 compared to 2015-16. The difference between the two school years was not statistically significant.

Evaluators repeated this analysis in Year 2 by examining proficiency for intervention students taking the assessment in both 2016-17 and 2017-18 (n=70). Figure 6 displays the percentage of intervention students at each of the four proficiency levels for 2016-17 and for 2017-18. Although a slightly higher percentage of students met proficiency in 2017-18, the difference between the two school years was not statistically significant.

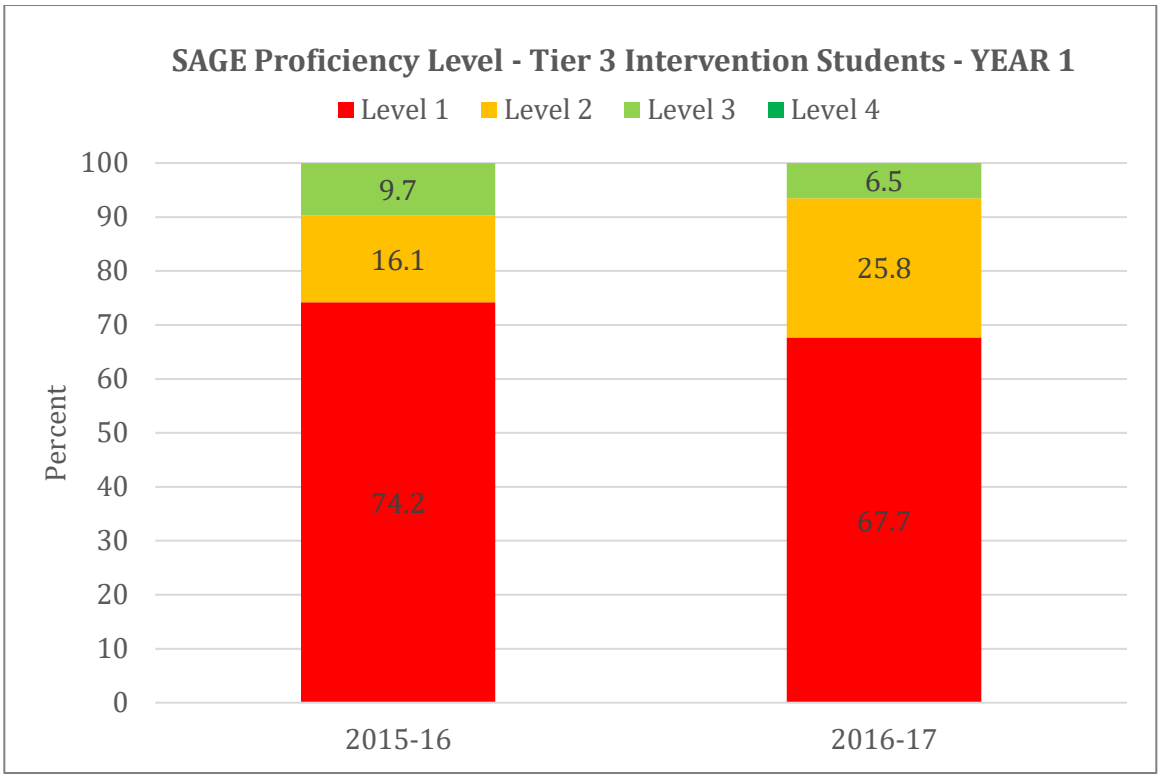

Figure 5. **SAGE Proficiency Level – Tier 3 Intervention Students – 2015-16 & 2016-17**

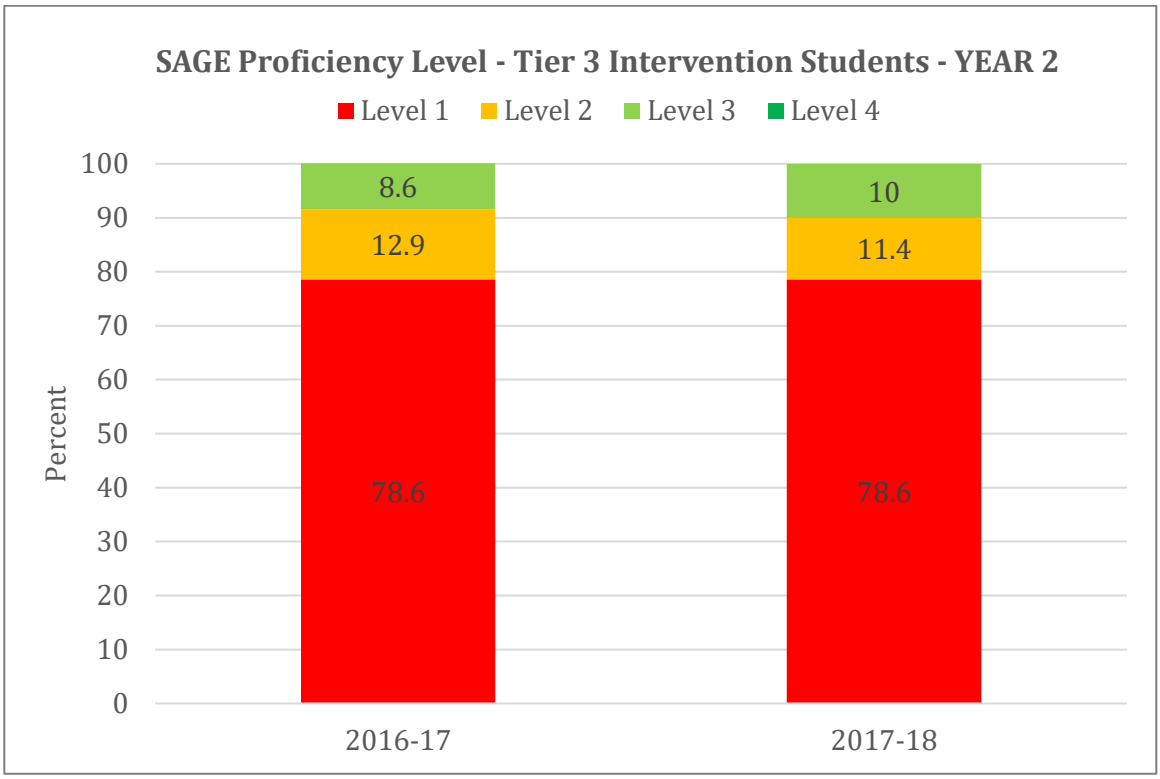

Figure 6. **SAGE Proficiency Level – Tier 3 Intervention Students – 2016-17 & 2017-18**

Table 10 displays the percentage of intervention students falling into each proficiency level disaggregated by grade level for 2016-17 and 2017-18. In Year 1, 5th grade intervention students had the highest percentage meeting proficiency followed by 3rd grade and then 4th grade. This pattern was different in Year 2, with 3rd grade students having the highest percentage meeting proficiency followed by 5th grade and then 4th grade.

Table 10.
SAGE Proficiency Level – Tier 3 Intervention Students by Grade Level

Grade Level[1]	Proficiency Level	2016-17	2017-18
3rd	Level 1	69.5%	69.0%
	Level 2	23.7%	14.3%
	Level 3	6.8%	16.7%
	Level 4	0%	0.0%
4th	Level 1	72.5%	70.5%
	Level 2	22.5%	20.5%
	Level 3	5.0%	6.8%
	Level 4	0%	2.3%
5th	Level 1	53.8%	86.1%
	Level 2	35.9%	2.8%
	Level 3	10.3%	11.1%
	Level 4	0%	0.0%

[1]Results for 6th grade are not displayed since there were less than 10 students.

Researchers also investigated the percentage of students falling into each proficiency level by intervention program (see Table 11). The Wilson program is not included since there were under 10 students participating each year. In Year 1, a chi-square analysis of the percentage of students falling into each proficiency level showed a trend for statistical significance (*chi-square* = 5.27, *p* = .07), with a higher percentage of students meeting proficiency in the Sonday program compared to the SPIRE program. In Year 2, no statistically significant difference was found between the two programs on SAGE proficiency level. These findings should be interpreted cautiously due to differences in how schools selected students to participate in the program. For example, some schools had a higher percentage of students performing at higher levels on the BOY DIBELS assessment compared to other schools.

Table 11.
SAGE Proficiency Level – Tier 3 Intervention Students by Intervention Program

Intervention Program	Proficiency Level	2016-17	2017-18
SPIRE	Level 1	78.8%	71.4%
	Level 2	19.2%	10.7%
	Level 3	1.9%	16.1%
	Level 4	0.0%	1.8%
SONDAY	Level 1	61.9%	80.3%
	Level 2	28.6%	12.1%
	Level 3	9.5%	7.6%
	Level 4	0.0%	0.0%

Figure 7 displays the percentage of students falling into each proficiency level for 2016-17 and for 2017-18 for intervention and comparison students. In Year 1, although a higher percentage of intervention students met proficiency and a lower percentage fell into Level 1, the difference between the groups was not statistically significant. In Year 2, the difference between the two groups was statistically significant (*chi-square* = 18.28, *p* = .001), with a higher percentage of comparison students meeting proficiency and a lower percentage at Level 1 compared to intervention students.

Researchers also used 2017-18 SAGE Student Growth Percentiles (SGP) to investigate improvement over time. Figure 8 displays the mean SGP for intervention and comparison students. Comparison students had a higher mean SGP than intervention students, but the difference between the two groups was not statistically significant. Additionally, no statistically significant difference existed in mean SGPs between the different reading intervention programs (see Figure 9), however the n-size for the Wilson program is small.

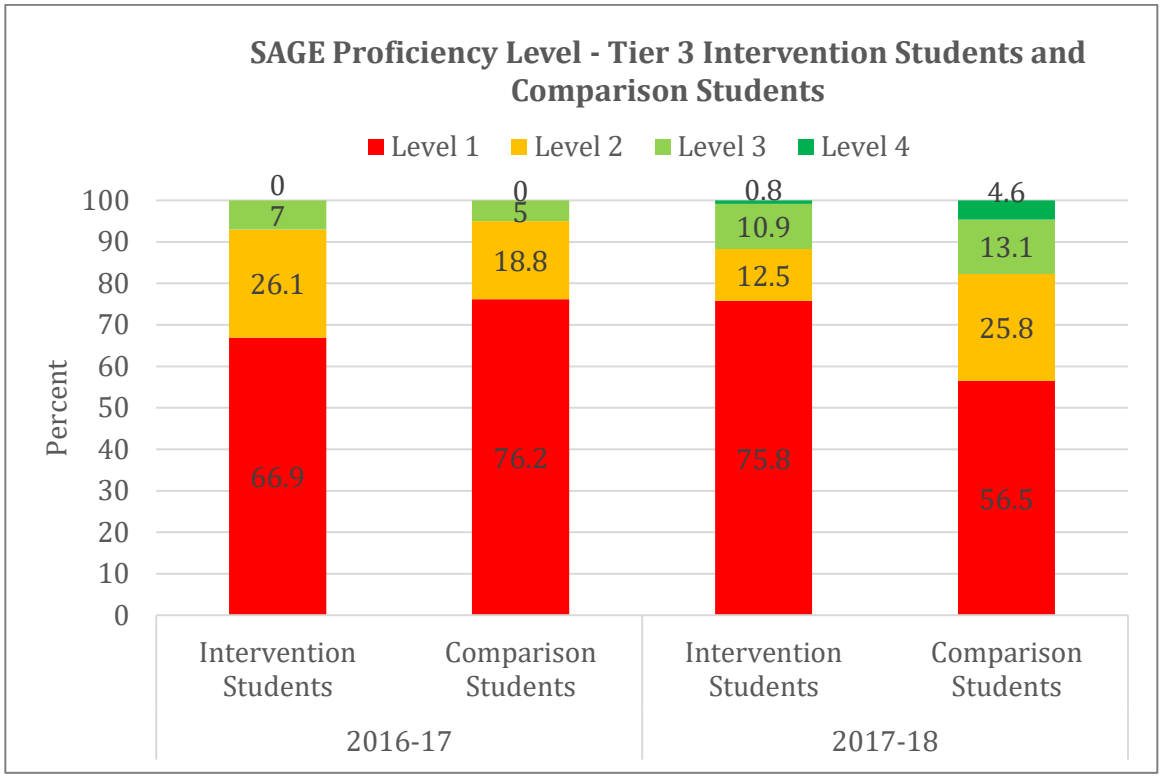

Figure 7. **SAGE Proficiency Level – Tier 3 Intervention Students and Comparison Students**

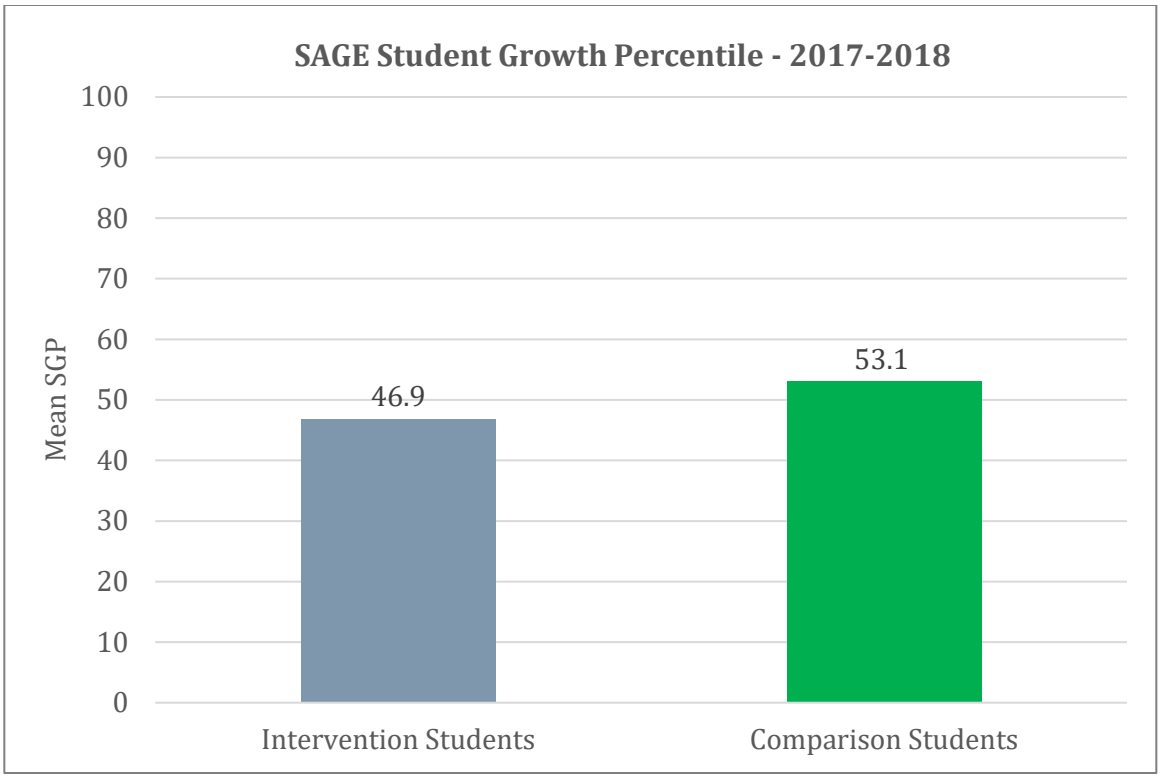

Figure 8. **SAGE SGPs – Tier 3 Intervention Students and Comparison Students**

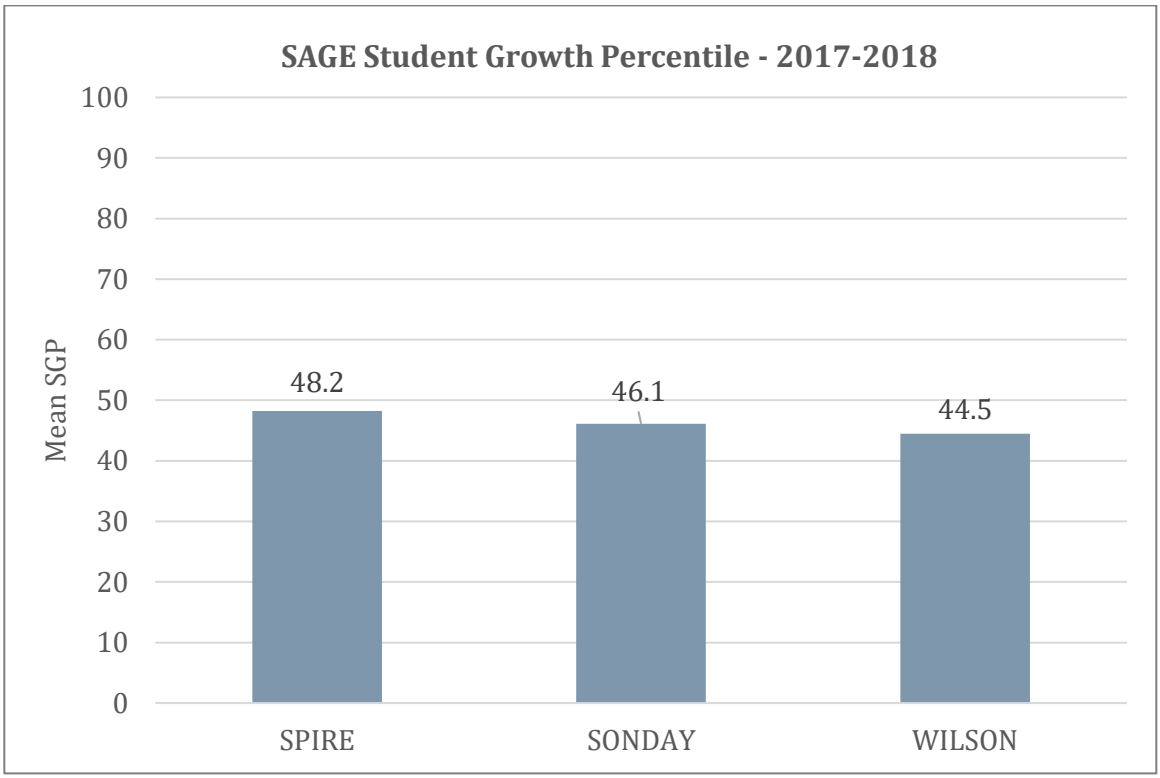

Figure 9. **SAGE SGPs – Tier 3 Intervention Students by Reading Program**

TO WHAT EXTENT DO STUDENT ASSESSMENT SCORES DIFFER BETWEEN THOSE SERVED IN LEAS PARTICIPATING IN THE INTERVENTIONS FOR READING DIFFICULTIES PILOT PROGRAM AND THOSE SERVED IN THE COMPARISON SCHOOLS?

Evaluators also analyzed school wide results with the assumption that the professional development may impact literacy instruction schoolwide. To answer this evaluation question, researchers received a database from the state including DIBELS and SAGE data for all students at the intervention schools and all students at the comparison schools. A total of 11 intervention schools and 11 comparison schools were included in the analysis for Year 1, while 12 of each were included for Year 2. As described earlier, comparison schools were selected based on performance on the ELA SAGE followed by the demographics of the school. In Year 1, students in intervention schools had slightly higher rates of being low income, had a higher rate of being an English Learner and qualifying for Special Education compared to students at comparison schools (see Table 12). In Year 2, comparison schools had higher rates for being low income and slightly higher rates for English Learners and qualifying for Special Education compared to intervention schools.

Table 12.
Sample and Comparison Characteristics

	Year 1	
	Tier 3 Intervention Schools	**Comparison Schools**
N-size	5771	4599
Gender	48.7% female 51.3% male	47.7% female 52.3% male
Low Income Status	40.6%	38.2%
English Learner Status	7.4%	3.9%
Special Education Status	16.7%	14.1%
	Year 2	
	Tier 3 Intervention Schools	**Comparison Schools**
N-size	6232	5457
Gender	48.5% female 51.5% male	47.8% female 52.2% male
Low Income Status	33.2%	39.1%
English Learner Status	7.6%	8.1%
Special Education Status	15.2%	16.1%

DIBELS

Students at intervention and comparison schools were administered the DIBELS assessment at the beginning, middle, and end of the year. Figure 10 displays the percentage of students falling into each category during each time period for the 2016-17 and 2017-18 school years for both groups. In Year 1, the percentage of students in the "at or above benchmark" category increased by 6 percentage-points from the beginning of the year to the end of the year for the intervention

schools, while the percent of students at the comparison schools also increased, but by about 3 percentage-points. For Year 2, the percentage of students in the "at or above benchmark" category increased by 8 percentage-points from the beginning of the year to the end of the year for the intervention schools, while the percent of students at the comparison schools increased by about 9 percentage-points. In Year 1, a chi-square analysis showed no difference between the two groups at the beginning of the year, but at the end of the year a statistically significant difference did exist (*chi-square* = 18.69, $p < .001$), with a higher percentage of students at intervention schools in the "at or above benchmark" status compared to students at comparison schools. In Year 2, both the beginning and end of the year chi-square analyses showed a difference between the two groups (*chi-square* = 16.96, $p < .001$ and *chi-square* = 17.53, $p < .001$, respectively), with a higher percentage of students at intervention schools in the "at or above benchmark" status compared to students at comparison schools in each time period. Additionally, an independent samples *t*-test using the difference between beginning and end of the year composite scores showed a statistically significant difference in improvement in mean scores between the two groups in Year 1 ($t = -3.99$, $p < .001$), with an average score improvement of 96 points for students at intervention schools and 92 points for students at comparison schools. There was no significant difference in improvement in mean scores between the two groups in Year 2.

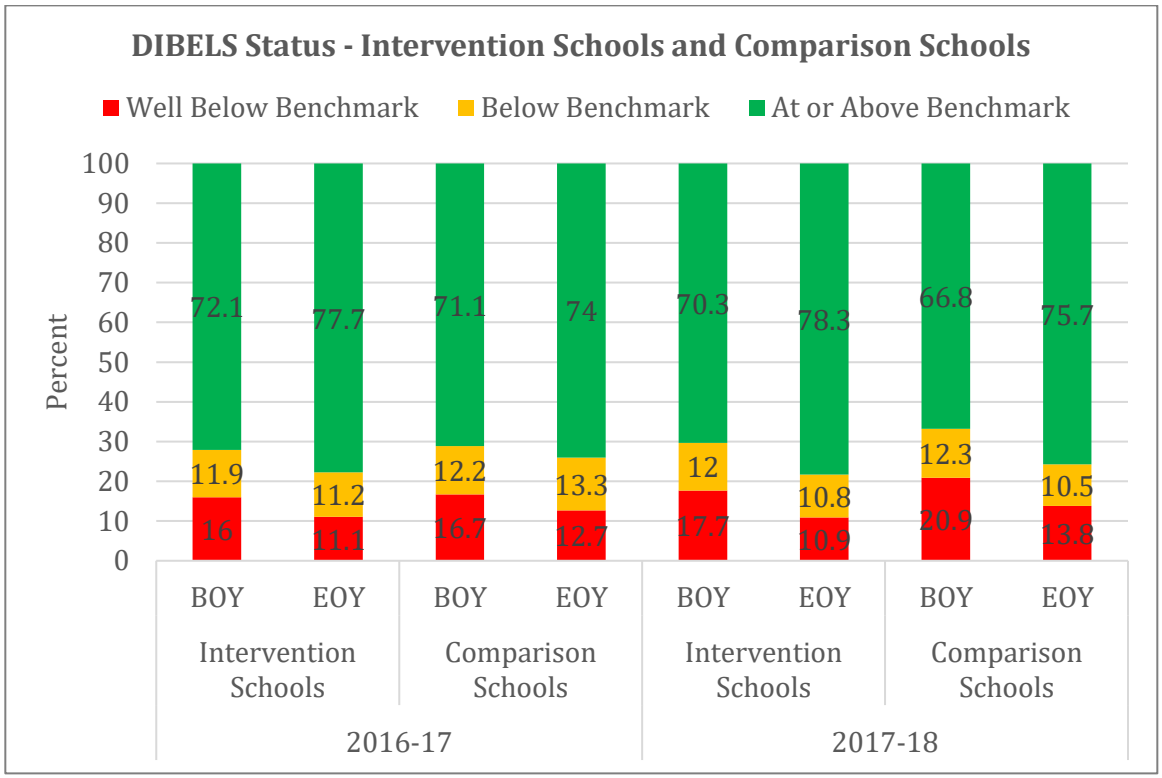

Figure 10. **DIBELS Status – Intervention Schools and Comparison Schools**

Researchers also investigated the percentage of students falling into each category at the beginning and end of the year by intervention program for each group. For this analysis, comparison schools were matched to their corresponding intervention school (see Table 13).

Table 13.
Matched Intervention Schools and Comparison Schools

	Year 1	
Intervention Program	**Intervention Schools**	**Comparison Schools**
SPIRE	Edgemont School Franklin School Layton School	Rock Canyon School Hillcrest School Clinton School
SONDAY	Canyon School Lincoln School North Park School Wellsville School Discover School Three Mile Creek School	White Pine School Lewiston School Providence School Mountainside School Fielding School Foothill School
WILSON	Sterling School West School	Northlake School Settlement Canyon School
	Year 2	
Intervention Program	**Intervention Schools**	**Comparison Schools**
SPIRE	Canyon Crest School Franklin School Layton School	Orem School Hillcrest School (Alpine SD) Clinton School
SONDAY	Canyon School Lincoln School North Park School Wellsville School Discovery School Three Mile Creek School	Woodruff School Adams School Hillcrest School (Logan SD) Wilson School Fielding School Foothill School
WILSON	Overlake School Rose Springs School Willow School	Middle Canyon School Stansbury Park School Old Mill School

Note: Two schools from Tooele School District were not included in the analyses because none of their students participated in a Tier 3 intervention program.

The percentage of intervention school students and comparison school students falling into each category at the beginning of the year and at the end of the year by intervention program is displayed in Table 14.

SPIRE. In Year 1, the percentage of students "at or above benchmark" at SPIRE intervention schools improved by about 7 percentage points from the beginning of the year to the end, while the percentage of students at or above benchmark at SPIRE comparison schools decreased by about 2 percentage points. A chi-square analysis of the percentage of students falling into each category for the beginning of the year by group was statistically significant (*chi-square* = 9.34, $p < .01$), with a higher percentage of students at or above benchmark at comparison schools at the beginning of the year, but the end of the year comparison was not statistically significant which shows that students at intervention schools caught up.

In Year 2, the percentage of students "at or above benchmark" at SPIRE intervention schools improved by about 9 percentage points from the beginning of the year to the end, while the percentage of students at or above benchmark at SPIRE comparison schools increased by about 7 percentage points. Chi-square analyses of the percentage of students falling into each category at the beginning of the year and at the end of the year by group was not statistically significant.

SONDAY. In Year 1, the percentage of students at or above benchmark at SONDAY intervention schools improved by about 6 percentage points from the beginning of the year to the end. A similar percentage was found at SONDAY comparison schools (7 percentage points). A chi-square analysis of the percentage of students falling into each category for the beginning of the year by group was statistically significant (*chi-square* = 6.81, $p < .05$), with a higher percentage of students at or above benchmark at intervention schools at the beginning of the year, but the end of the year comparison was not statistically significant.

In Year 2, the percentage of students at or above benchmark at SONDAY intervention schools improved by about 7 percentage points from the beginning of the year to the end. A higher percentage was found at SONDAY comparison schools (14 percentage points). Chi-square analyses of the percentage of students falling into each category for the beginning of the year and the end of the year by group were statistically significant (*chi-square* = 55.66, $p < .001$ and *chi-square* = 32.51, $p < .001$, respectively), with a higher percentage of students at or above benchmark at intervention schools for both time periods, although the gap between the groups decreased from the beginning of the year to the end.

WILSON. Finally, the percentage of students at or above benchmark at WILSON intervention schools in Year 1 improved by about 5 percentage points from the beginning of the year to the end, while the percentage of students at or above benchmark at WILSON comparison schools increased by about 1 percentage point. A chi-square analysis of the percentage of students falling into each category for the beginning of the year by group was not statistically significant, but was at the end of the year (*chi-square* = 8.56, $p < .05$), with a higher percentage of students at or above benchmark at intervention schools.

In Year 2, the percentage of students at or above benchmark at WILSON intervention schools improved by about 9 percentage points from the beginning of the year to the end, while the percentage of students at or above benchmark at WILSON comparison schools increased by about 6 percentage points. A chi-square analysis of the percentage of students falling into each category for the beginning of the year by group was statistically significant (*chi-square* = 6.12, $p < .05$) with a higher percentage of students at or above benchmark at comparison schools, but the difference between the groups was not significant by the end of the year.

Table 14.
DIBELS Status – Intervention Schools and Comparison Schools

		Year 1			
		Intervention Schools		Comparison Schools	
Intervention Program	Status	BOY	EOY	BOY	EOY
SPIRE	Well Below	19.5%	11.3%	15.8%	12.3%
	Below	11.5%	12.2%	9.6%	14.9%
	At or Above	69.0%	76.5%	74.5%	72.8%
SONDAY	Well Below	11.5%	7.3%	12.8%	8.9%
	Below	11.1%	10.2%	12.9%	10.2%
	At or Above	77.4%	82.5%	74.3%	80.9%
WILSON	Well Below	25.4%	22.2%	25.7%	20.9%
	Below	14.3%	13.4%	13.4%	17.9%
	At or Above	60.3%	64.5%	60.9%	61.2%
		Year 2			
		Intervention Schools		Comparison Schools	
Intervention Program	Status	BOY	EOY	BOY	EOY
SPIRE	Well Below	18.5%	11.1%	19.0%	12.1%
	Below	10.3%	8.9%	9.9%	11.3%
	At or Above	71.2%	80.0%	71.0%	76.6%
SONDAY	Well Below	15.0%	8.7%	22.0%	14.2%
	Below	10.9%	10.2%	13.1%	9.4%
	At or Above	74.1%	81.1%	64.1%	76.4%
WILSON	Well Below	20.9%	13.9%	19.1%	14.0%
	Below	15.0%	13.1%	12.6%	11.8%
	At or Above	64.2%	73.0%	68.3%	74.2%

SAGE

The percentage of students at each SAGE proficiency level for students at intervention and comparison schools is displayed in Figure 11 for the 2016-17 and 2017-18 school years. In Year 1, a statistically significantly higher percentage of students at comparison schools met proficiency on the SAGE (*chi-square* = 13.21, $p < .001$), with 51.2% of students at comparison schools meeting proficiency compared to 46.6% of students at intervention schools. No difference was found between the two groups in Year 2, with 48.2% of students at comparison schools meeting proficiency compared to 48.9% of students at intervention schools

Researchers also used 2017-2018 SAGE Student Growth Percentiles (SGP) to investigate improvement over time. Figure 12 displays the mean SGP for intervention schools and comparison schools. Comparison schools had a significantly higher mean SGP than intervention schools ($t = 3.86$, $p < .001$).

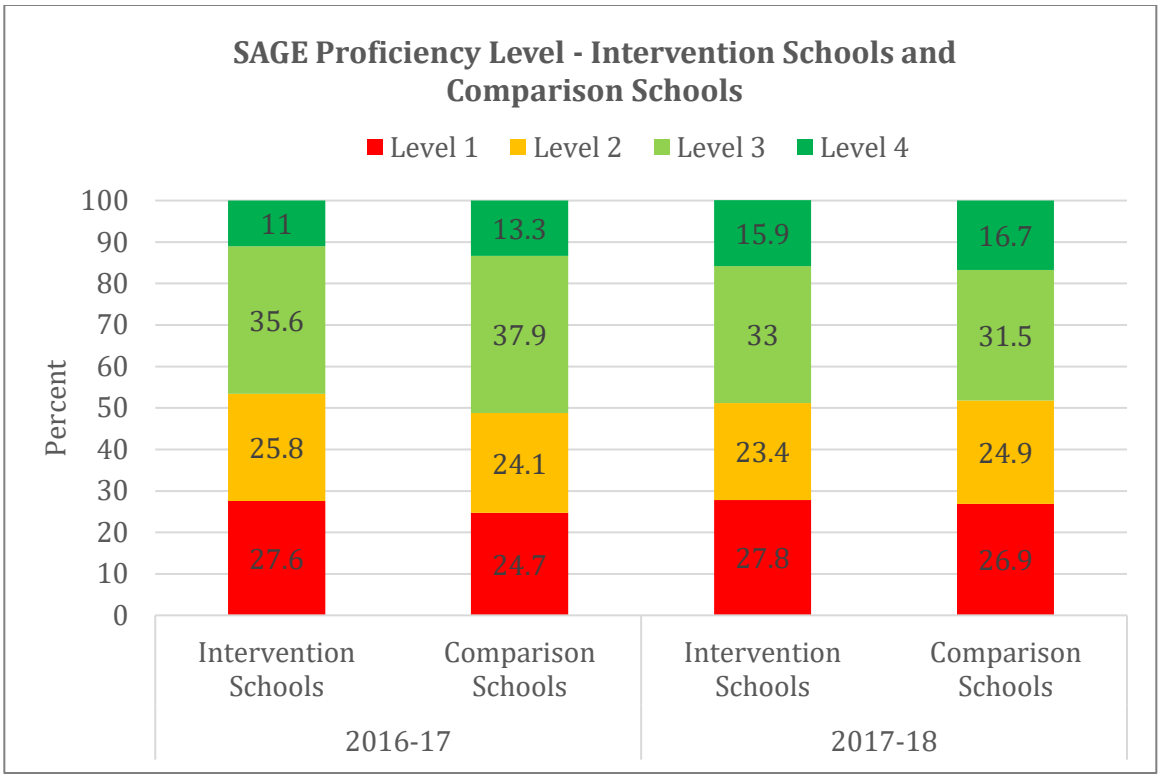

Figure 11. **SAGE Proficiency Level – Intervention Schools and Comparison Schools**

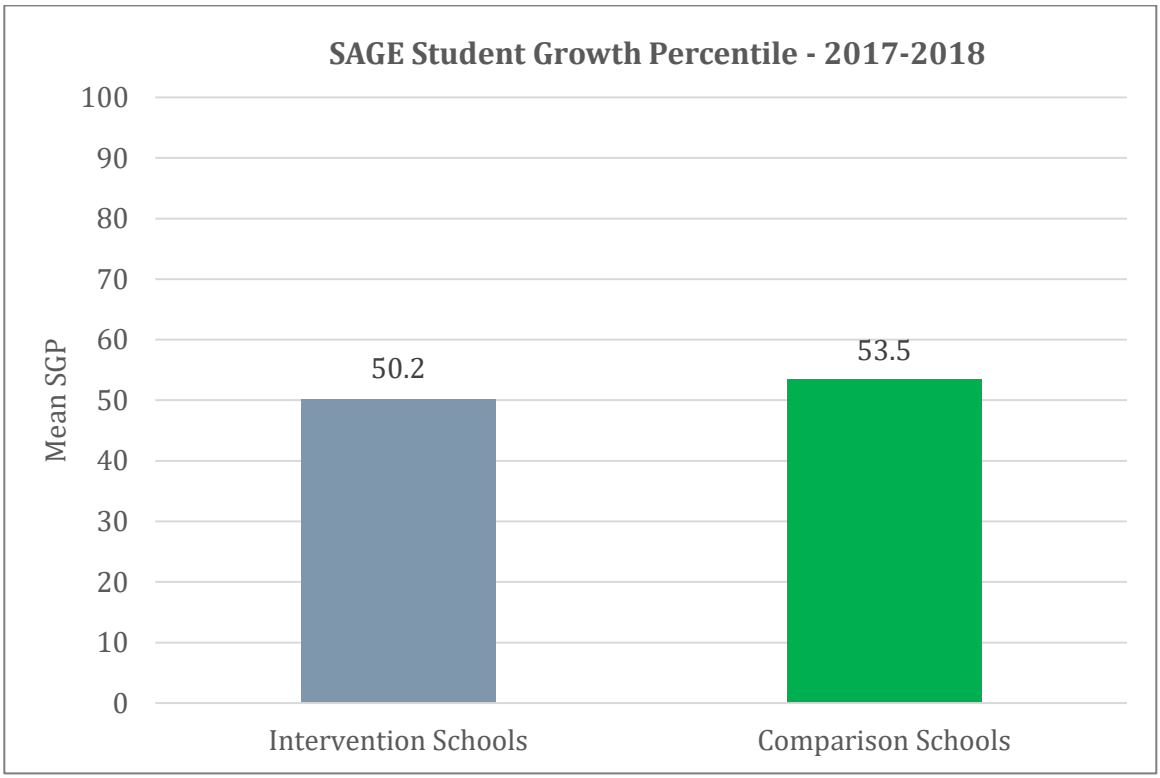

Figure 12. **SAGE SGPs – Intervention Schools and Comparison Schools**

Researchers also investigated the percentage of students falling into each proficiency level by intervention program for each group. The percentage of intervention school students and comparison school students falling into each proficiency level by intervention program is displayed in Table 15.

In Year 1, the percentage of students meeting proficiency (Level 3 and Level 4) at SPIRE intervention schools was 46.0%, compared to students at SPIRE comparison schools at 55.3%. The same pattern occurred with Sonday and Wilson schools, with the comparison schools outperforming the intervention schools. The percentage of students meeting proficiency at Sonday intervention schools was 43.1%, compared to students at Sonday comparison schools at 56.5%. For Wilson, the percentage of students meeting proficiency at intervention schools was 26.1%, compared to students at Wilson comparison schools at 37.3%.

In Year 2, the percentage of students meeting proficiency at SPIRE intervention schools was similar to SPIRE comparison schools (51.0% and 52.8%, respectively). The percentage of students meeting proficiency at Sonday intervention schools was higher than at Sonday comparison schools (52.3% and 46.9%, respectively). For Wilson, the percentage of students meeting proficiency at intervention schools was 40.9%, compared to students at Wilson comparison schools at 46.2%.

Table 15.
SAGE Proficiency Status – Intervention Schools and Comparison Schools

		Year 1	
Intervention Program	**Proficiency Level**	**Intervention Schools**	**Comparison Schools**
SPIRE	Level 1	28.7%	24.2%
	Level 2	25.2%	20.5%
	Level 3	34.3%	40.3%
	Level 4	11.7%	15.0%
SONDAY	Level 1	20.8%	17.9%
	Level 2	26.1%	25.7%
	Level 3	40.6%	40.4%
	Level 4	12.5%	16.1%
WILSON	Level 1	49.5%	36.6%
	Level 2	24.5%	26.1%
	Level 3	21.4%	31.2%
	Level 4	4.7%	6.1%
		Year 2	
Intervention Program	**Proficiency Level**	**Intervention Schools**	**Comparison Schools**
SPIRE	Level 1	28.9%	23.4%
	Level 2	20.1%	23.8%
	Level 3	34.8%	33.0%
	Level 4	16.2%	19.8%
SONDAY	Level 1	23.6%	28.6%
	Level 2	24.1%	24.5%
	Level 3	35.1%	30.8%
	Level 4	17.2%	16.1%
WILSON	Level 1	34.4%	27.4%
	Level 2	24.6%	26.4%
	Level 3	27.6%	31.3%
	Level 4	13.3%	14.9%

TO WHAT EXTENT DO SPECIAL EDUCATION PLACEMENTS DIFFER BETWEEN THOSE SERVED IN LEAS PARTICIPATING IN THE INTERVENTIONS FOR READING DIFFICULTIES PILOT PROGRAM AND THOSE SERVED IN THE COMPARISON SCHOOLS?

District and school personnel believe the Tier 3 Intervention programs will impact special education placements in the future. District and school personnel believe that the increase in collaboration amongst general and special education and paraeducators, as well as the greater understanding of the purpose of tiered instruction will ultimately result in fewer referrals and fewer qualifications. One person shared, "I feel that we are getting to the point of finally realizing special education is not a room. Now we are coordinating, and we are trying to find the right interventions. We are owning students more collectively."

While school and district personnel could share stories of students testing out of special education or students not qualifying for special education after implementing the Tier 3 Intervention program, they also acknowledged that they are in the beginning phases of impacting special education referrals and placements. They have refined their processes to ensure students have access to an intervention before making a referral, and they have clarified Tier 2 and Tier 3 interventions. Now they are working to ensure the interventions are implemented with fidelity and that general education teachers understand the interventions and that the interventions are implemented prior to making a referral. One person shared, "I haven't seen a huge decrease in referrals, but we have so many different ways to catch students up, referrals will be a last resort."

SPECIAL EDUCATION DATA ANALYSES

Special Education qualification data was collected from the state and matched to district data on which students participated in Tier 3 Intervention programs. The percentage of students at Tier 3 Intervention schools qualifying for special education went up from 2015 to 2017, but then decreased slightly in 2018, with an overall increase of .5 percentage points over four years (see Table 16). The percentage of students at comparison schools qualifying for special education has increased every year from 2015 to 2018, with an overall increase of 1.4 percentage points over four years.

Table 16.
Special Education Qualification from 2015 through 2018 for Intervention and Comparison Schools

Year	Tier 3 Intervention Schools	Comparison Schools
2015	14.7%	14.7%
2016	15.0%	15.1%
2017	15.4%	15.3%
2018	15.2%	16.1%

The percentage of intervention and comparison students qualifying for Special Education has increased from 2015 to 2018 (see Table 17). Overall, from 2015 to 2018 the percent increase for intervention students was 8.5 percentage points, while the increase for comparison students was 7.6 percentage points. While comparison students qualifying for Special Education increased

each year, intervention students increased from 2015 to 2016 then decreased from 2016 to 2017, but increased again from 2017 to 2018. Results for this analysis should be interpreted cautiously due to the unequal sample sizes for the groups each year.

Table 17.
Special Education Qualification from 2015 through 2018 for Intervention and Comparison Students

Year	Tier 3 Intervention Students	Comparison Students
2015	26.0%	23.8%
2016	33.0%	28.4%
2017	31.8%	28.9%
2018	34.5%	31.4%

Box Elder, Cache County, and Tooele provided data in both Year 1 and Year 2 on Special Education referrals and whether the referral resulted in a Special Education qualification, while Davis provided data for Year 2 only. Provo School District also provided data, but it was in a format that was not useable for this evaluation. In Year 1, a total of 109 referrals were made with 56 (51.4%) resulting in a Special Education qualification. In Year 2, a total of 128 referrals were made with 79 (61.7%) resulting in a Special Education qualification.

TO WHAT EXTENT DO THE PROFESSIONAL DEVELOPMENT OPPORTUNITIES SUPPORT TEACHER AND STUDENT OUTCOMES?

A goal of the Interventions for Reading Difficulties Pilot Program was to improve the effectiveness of professional development. According to district and school personnel, consistent support and training around Tier 3 instruction was previously lacking. One person shared, "In the past, we just implemented programs, but this is the first time we have learned *why* we are implementing the program and *how* to implement the program."

In support of the grant, all districts have provided professional development around the Tier 3 program by the service provider or by district personnel (train-the-trainer model). Districts have also provided additional support to teachers and paraeducators implementing the program, although the frequency and nature of support differs across districts. Finally, the USBE PreK-12 Literacy and Library Media Coordinator conducted technical support visits to provide differentiated systems-level support.

PROFESSIONAL DEVELOPMENT

All districts engaged in training with the service provider during Year 1 of the grant prior to implementing the Tier 3 Intervention program. The intensity of the training varied by program, ranging from a two-day training prior to implementation (Sonday and SPIRE) to a very intensive model (Wilson). The training for Wilson includes a three-day training in the spring, one additional day in the fall, and another three-day training in the spring. Between trainings, all participants work one-on-one with a student throughout the year where students complete 60 lessons. Simultaneous to this, the trainees participate in five observations, five coaching sessions, and five intervention meetings, and they also complete an online course working through six

specific modules that include watching videos, modeling, and reviewing research articles. Upon completion, teachers receive certification.

In Year 2, some district continued to work with the service provider while others provided training from the district. In both cases, participants reported that the quality of the training improved because it included more modeling of lessons and implementation strategies, rather than a focus on the structure of the curriculum. One person described, "There have been one or two trainings, and they have been effective in giving people the skills. Last year, I felt it was a program, but this year it was a focus on teaching us how to do it and tweaking things as well as we can." Across the districts, the instructional facilitator, general and special education teachers, paraeducators, and administrators attended the trainings. Several people reported that involving the paraeducators has been critical. One person commented, "The paraeducators understand the components of the program because they have been involved in training. Before we would just give them a program, and they didn't understand the program."

However, Wilson training differed. Because of the intensity and cost of the program, only participants utilizing the program receive the training. In addition, none of the Year 1 participants continued to the Level II Certification program. The Level II program is similar in structure to the Level I program, and participants work with a small group of students, rather than individual students. At the time of the site visit, at least one Year 2 teacher planned to continue to Level II certification.

Participants appreciated the training and believed they were effective. Figure 13 shows participants ratings of the trainings' effectiveness on a scale of 1 to 10. Overall, 60% of participants rated the training an 8 or higher in Year 2, compared to 64% in Year 1. This rating demonstrates a high level of satisfaction. In addition, although there is a greater spread of scores in 2017-2018, the mean scores have improved slightly, primarily because of a greater proportion of participants rating the training a 10 in Year 2.

In Year 2, results from the Professional Development Survey show that the training met participants' expectations (91%), helped further their understanding of the program (90%), and included information they plan to use with their students (100%) (see Figure 14). While fewer agreed they feel comfortable delivering the program (75%), most participants believe the training will help them improve the performance of students on literacy assessments (95%). Results are similar to Year 1; however, a greater proportion of participants see the benefit of the program for their students. These results are consistent with interview findings, and many participants reported greater confidence with the program because they have seen success with their students. Participants perceived Year 2 training was helpful to improve fidelity to implementation. One person wrote: "I feel I can go back to my school and implement this immediately. I liked practicing with each other and learning as a group. It helped me understand better how to do it." Another wrote, "I have been trained at this last year, and I still learned so much. This was a good reminder of the steps/pieces."

During interviews, participants generally felt that the training was sufficient. While individual questions remained about implementation strategies, most felt comfortable that their instructional facilitators or district representatives could provide additional support. One person commented, "We had training from the program and experts. I believe it was sufficient. I enjoyed the second training, as it was more teacher supportive, and it gave us more tricks."

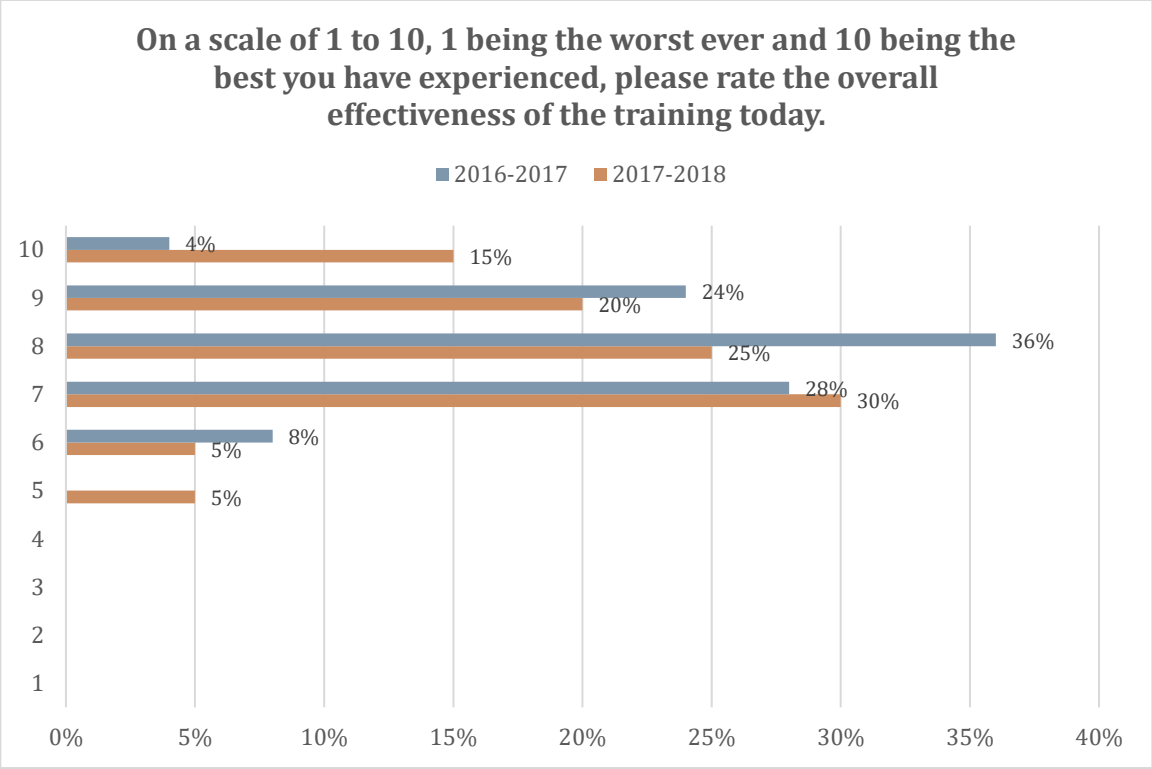

Figure 13. **Participants' Ratings of Professional Development**

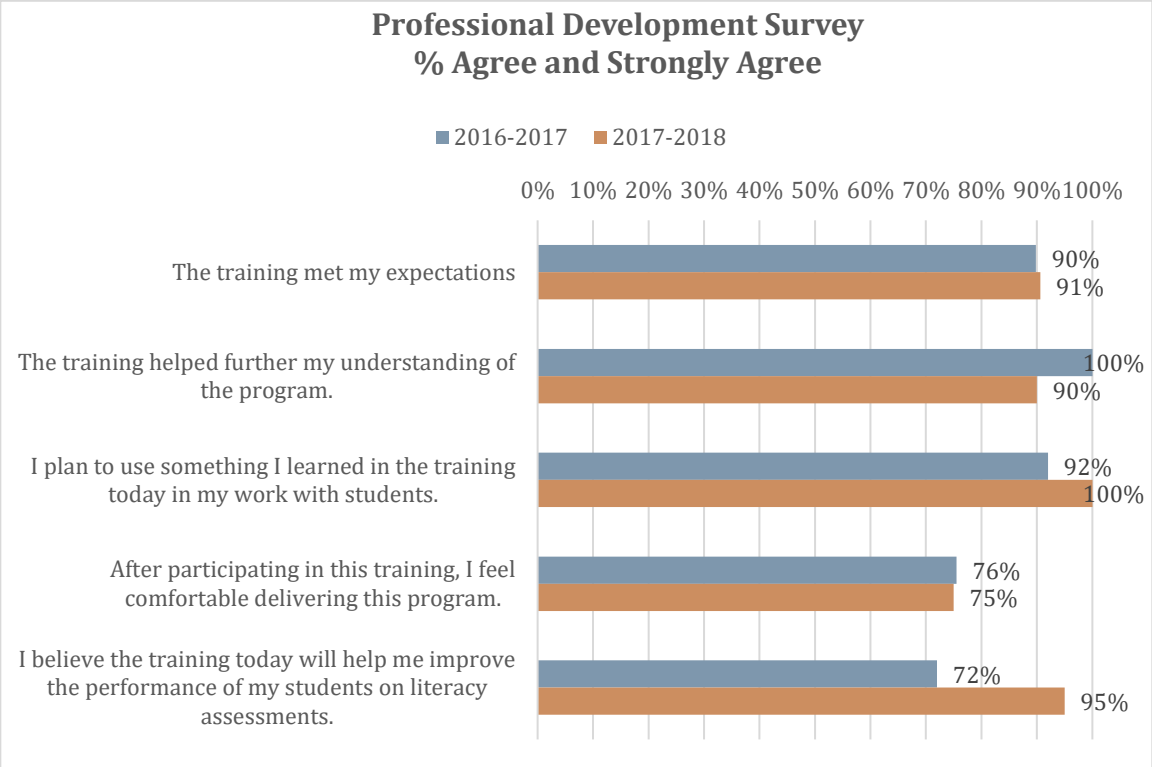

Figure 14. **Professional Development Survey Results**

DISTRICT SUPPORT

District personnel have also improved training and support for implementation. The support varies substantially by district, and generally districts that are implementing the program in all or most schools (Cache County and Provo school districts) have a more developed and comprehensive system of support. For example, Cache County has divided the district into quads and has a district trainer assigned to each quad. They have some whole group professional development throughout the year that includes training, watching video clips, and modeling of lessons. The training was designed based on participants' needs and feedback. They have also developed an observation schedule, where every person implementing the program is observed and has a chance to observe others two to three times a year. Following the observations, there is an opportunity for debrief and reflections. To support ongoing training, the district hired a videographer who developed short video clips of the different steps of the program, implementation strategies, and materials so teachers and paraeducators can access the video clips as needed. Provo School District has implemented systems level support where they provide monthly collaborative meetings for principals to discuss how to support MTSS and Response to Intervention. In addition, the district provides monthly support to the instructional facilitators where they provide professional development, in response to needs, so the instructional facilitators can support their schools. A district-level coach also visits each school on a monthly basis, providing support for observations and materials. A district representative commented, "To teach this with fidelity you need support of the district, with continued training, and observing. We are always training and supporting."

Box Elder School District also has a district-level literacy coach who provides training, models the program, conducts observations, supports improved instruction, and reviews data with the teachers and paraeducators who utilize the program. Box Elder and Davis school districts also have school-level instructional facilitators who provide additional support through professional development, modeling and observing of lessons, and reviewing data. Both districts have opportunities for paraeducators and teachers to meet during Professional Learning Communities (PLCs) to discuss data. In addition, the Davis School District implemented a PLC for paraeducators to review implementation strategies and data, and the instructional facilitator provides support. Because of the depth of training for the Wilson program, Tooele School District is primarily working with the service provider for professional development.

All districts provide additional support in putting together materials and bins for the Tier 3 program, either from the district or the instructional facilitator. This has helped to ensure teachers and paraeducators have access to and are using the correct materials, has helped school/district administrators identify additional materials to be ordered, and has allowed teachers and paraeducators to focus on implementation of the program. One person shared, "We provide support to order the materials needed, and we help them organize the materials. It may not seem like much, but it saves a lot of time and frustration." Another said, "Having the materials prepared is so helpful. We got copies of things, we got masters, and word cards. Before school started we had the word cards ready to go. They brought the materials with storage containers."

Across districts, teachers were appreciative of the district level support. In particular, they appreciate the modeling of lessons, observing their peers, and participating in PLCs. One person said, "The modeling of lessons is really impressive. I learn so much watching someone else." Another said, "[Our instructional facilitator] has done some additional support from observations

and professional development with the paraeducators. She has been able to give some additional help and support when needed. They have time to debrief." Still another said, "We have so much support here, we don't need training from the service provider."

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In Year 2, the PreK-12 Literacy and Library Media Coordinator conducted site visits to each district. During the visits, they discussed lessons learned from Year 1 and implementation strategies for Year 2, the MTSS framework and identification of students, adjustments that needed to be made to ensure sustainability, scheduling of the intervention, and professional development strategies. She also provided specific support to address technical needs, such as guidance in developing entrance and exit criteria for one school that was targeting students who did not need the intervention, as well as guidance to Tooele School District to expand programming to include SPIRE.

District representatives appreciated this extra level of support. One person said,

> She has been great. She came out in January and spent a half-day watching the program and meeting with us. She talked about the exit and entry process. We realized that we were using processes that weren't needed. We went back to the drawing board, and she gave us more pointers. Now it looks good.

Several districts hoped this support would continue into Year 3. Notably, they were interested in getting guidance about the differences in Tier 2 and Tier 3 programs, identifying the recommended programs for each tier, developing their MTSS model, and scheduling an intervention period.

WHAT ARE THE CONTEXTUAL FACTORS INFLUENCING THE INTERVENTIONS FOR READING DIFFICULTIES PILOT PROGRAM IMPLEMENTATION?

Several contextual factors support and hinder implementation of the Interventions for Reading Difficulties Pilot Program. These include leadership commitment, teacher buy-in, time, reliance on paraeducators, and behavioral issues.

Similar to Year 1, participants underscored the importance of leadership commitment to the program at both the district and school levels. Teachers and paraeducators appreciate it when district and building administrators attend the training and can support a strong implementation plan. This has been an area of improvement in Year 2. One person reflected, "I don't think we were as successful in Year 1 because the principal wasn't involved in the training or the planning and didn't know how to support the teachers. Now we are all on the same page." However, there have been some schools where the principal or district leaders, who initially supported the program, changed positions, and this, combined with limited buy-in at the school level, resulted in the school dropping out of the grant. One person shared, "There is a new principal with philosophical differences."

Generally, in Year 2 teacher buy-in has improved. The combination of support from district and building leaders has helped to garner buy-in. In addition, more teachers have learned about the

program because they are collaborating with the teachers/paraeducators implementing the program, they have participated in professional development, and/or there is more comprehensive support and training for their MTSS model. One person said, "Last year it was chaotic. Students were missing part of their instruction, and we were missing an important part of implementation. The same teachers who were not excited last year, want their kids in the program this year. They saw the results." Another said, "Last year, they didn't have a foundation. To see teachers change their opinion is powerful. Last year, they saw it as an intervention and threw kids in. Now we have a plan where we are headed." Because there is greater buy-in and understanding some teachers are beginning to implement some strategies into the general education classrooms. However, this is not happening consistently and will take additional support from district and building leaders.

Time continues to be a contextual factor in Year 2. District and building administrators acknowledged that strong implementation requires a commitment from district and building administrators, teachers, and paraeducators. One person reflected, "As you add more to the three tiers, we are making a choice not to do something else. That is a difficult decision, and we do not take it lightly. We need to be careful we consider the types of experiences they need in the general classrooms." While most schools have developed a system of support, there has been difficulty in generating a commitment to the Wilson program because of the intensity of training required and because the one-on-one tutoring occurs after school. One person said, "Teachers are feeling overwhelmed and aren't sticking to the program." Because of this, there is some uncertainly as to how many teachers will continue in Year 3.

Time is also an issue for students. While some districts have created intervention classes or offered the services after school, others are pulling students out of other classes, which does affect their willingness to participate. One person said, "I think having a school-wide dedicated time for intervention is important. This would not be as effective if we pull kids out of class randomly. They are able to focus and don't worry about what they are missing in class." To work with the regular schedule or within the intervention period, some schools have shortened the intervention period to the point that a full lesson cannot be completed. When this occurred, they either completed the lesson over two days or skipped part of the lesson. Consequently, one district is planning on changing the intervention period from 30 minutes to 45 minutes in Year 3. Others are trying to create a strategy to implement an intervention period or to identify a schedule with the least impact on students. Several people suggested receiving more support from the USBE in this area. One person suggested, "We need guidelines on instructional schedules for Tier 1 and interventions." In addition, schools with the Dual Language Immersion program reported having more difficulty in developing an intervention schedule or scheduling Tier 2 and Tier 3 interventions because of Dual Language Immersion requirements.

While school districts are using a combination of teachers and paraeducators for implementation, the majority are relying on paraeducators. Although the paraeducators are provided additional support through professional development, the instructional facilitator, and PLCs, most people noted that program implementation could be stronger with teachers. An administrator reflected, "Last year, we had more success and our scores were better. We have a new paraeducator, and she is struggling. Last year, the teacher was strong. Now we have management and knowledge base issues." Another shared, "Having teachers teach is so powerful because of the set of skills they have." Several people noted that teachers have more training in instructional strategies, are able to make decisions about appropriate reading or supplemental materials, and are more skilled in

behavior management. One person reflected, “We are constrained by the schedule and needs of all our students. Because of that, we have the paraeducators work with our most challenged students.”

Finally, several people also commented that behavioral issues have continued to pose some problems within the intervention groups particularly with the paraeducators. People speculated that the behavioral issues could be because students did not want to be pulled out of their class, because they were bored, or because the intervention was too difficult. Regardless of the reasons, they also noted that many of the paraeducators did not have training in classroom management strategies. In some schools, administrators and instructional facilitators worked with paraeducators to develop a consistent behavior management system, and they are looking at scheduling options. An instructional facilitator noted, “There are times when we are sitting in PLCs and we discuss behavior issues. I will give them tips and talk with the students, but it is hard. The paraeducators don’t have the tools like regular classroom teachers.” A paraeducator acknowledged, “The program is so fast, and we have behavior issues that we aren’t qualified to treat. It slows us down … I think we could do better if they were alone. It is difficult working in a group setting.”

WHAT ARE THE BEST PRACTICES IDENTIFIED IN THE INTERVENTIONS FOR READING DIFFICULTIES PILOT PROGRAM?

There are a number of emerging best practices that are in development. These include the use of data, ongoing professional development, the development of a MTSS, and the implementation of an intervention period.

District and school personnel reported the Interventions for Reading Difficulties Pilot Program has built staff members’ capacity to analyze data. General and special education teachers as well as paraeducators are analyzing data, making data-driven decisions, and discussing the data. School personnel reported that they are utilizing more diagnostic and progress monitoring, and they understand how to use the data more accurately for diagnosing. In addition, there is growing awareness that groups should be fluid with students moving in and out of the intervention when necessary. One person commented, “We looked at our data and identified some Tier 2 students we thought may need to move to Tier 3. We realigned the groups.” Another shared, “We have looked at the programmatic data. We also look at DIBELS monitoring so we can track data between each big testing, and that has shown us some growth.” District and building administrators said that because of the emphasis on data, paraeducators can now see the improvements they are making with students. One person shared, “They have now seen the progress on learning, and that is empowering.” In addition, one district created policy to use DIBELS, grades K – 6.

The district-wide support beyond the initial training from the service provider is also considered a best practice. Although there is variation across districts, it often includes support from an instructional facilitator, peer observations and modeling, and PLCs. In addition, some districts have provided ongoing support for principals and instructional facilitators, and one district developed videos that show examples and non-examples of program implementation. This has ultimately led to continuity and a common language. One person shared, “I think the support at the district level and the school level administration being on the same page had to happen. We are getting the same message, and that can sustain after the grant ends.” Another said, “When you

have intentional professional development and support, implementing the program doesn't become a hurdle." Still another reflected, "Our administration is awesome. They have helped with the master schedule and figuring out time. They have provided all the support that we need to have the intervention and that is critical. It impacts all students."

District and school personnel's understanding of a MTSS has strengthen across districts, and in three districts, leaders have developed a model specifying expectations for Tier 1, Tier 2, and Tier 3 instruction, identifying the supporting programs and assessment and identification process to enter and exit each tier. One person shared, "We have an MTSS, and this has helped us understand how to provide extra support for our students."

Finally, two of the districts have implemented an intervention period for all students. This allows students to access targeted support, without missing some of the "fun" classes or other core content. One person said, "There isn't a stigma because of the interventions. Kids go to an intervention, and no one knows what they do in the intervention. It is just what they do." In fact, in one school some students requested to participate in the SPIRE intervention because they perceived that it was more fun. An administrator reflected, "I think having a school-wide dedicated time for intervention is important. This would not be as effective if we pulled kids out of class randomly. They are able to focus and don't worry about what they are missing in class."

Summary and Recommendations

The Interventions for Reading Difficulties Pilot Program is a three-year grant funded to five districts serving 14 schools in Year 2. The goals of the grant are to:

1) Improve reading outcomes for students in grades K-5 that receive the intervention
2) Reduce future special education costs, and
3) Improve the effectiveness of the professional development provided to educators.

In Year 2 of the grant, school and district personnel reported making progress towards these goals. They also identified some unintended outcomes, including refining and developing their MTSS, which has impacted schools throughout the district, and improving collaboration between general and special education teachers and paraeducators.

In Year 2, implementation has improved as district and school personnel clarified expectations and improved support. Although implementation varied greatly across districts based on the programs selected, who is utilizing the program, grade levels, length of the intervention, and the timing of the intervention, district and building personnel reported greater consistency within the districts. Districts focused on addressing challenges that occurred in Year 1 to improve fidelity of implementation, such as defining the criteria for students entering and exiting the program and developing strategies, structures, and intervention schedules to implement a lesson with fidelity. The outcomes from this work should be apparent in the Year 3 report.

Because implementation has improved, in four of the five districts, teachers and paraeducators reported improved confidence in the program and they believed students were benefitting from the tiered instruction. In the fifth district, there was substantial turnover in participating schools, and they were dealing with some of the Year 1 challenges other districts experienced, which included identifying a structure for the intervention and onboarding teachers.

Evaluators analyzed DIBELS and SAGE data to determine if students participating in Tier 3 Interventions were improving reading outcomes. These analyses should be interpreted cautiously. This is the second year of implementation of the Tier 3 Intervention implementation was limited to a small number of students and some schools had challenges with implementation. In addition, some students were placed in the intervention who were already in the "at or above benchmark" range on the DIBELS or at Level 3 on the SAGE. Furthermore, all districts were already offering interventions for Tier 3 students, albeit this differed greatly. Consequently, students within the comparison schools also likely had some intervention. Finally, district personnel noted that by simply applying for the grant, it increased their understanding of Tier 3 Interventions, which has also impacted their other schools.

Generally, results from DIBELS show that the percentage of intervention students in the "at or above benchmark" category more than doubled in Year 1 from the beginning of the year to the end of the year and more than tripled from beginning to end in Year 2. Evaluators also analyzed results from a subset of students from the comparison schools who had a similar distribution to intervention students on the DIBELS at the beginning of the year. Both groups made improvements, and there was no significant difference between the two groups at the beginning of the year or at the end of the year for either Year 1 or Year 2. SAGE results showed no significant improvement for intervention students from 2015-16 to 2016-17 or from 2016-17 to 2017-18, and there were no significant differences between the intervention and comparison students.

Evaluators also analyzed results for all students at intervention schools based on the assumption that the professional development may impact literacy instruction schoolwide. In Year 1, results at the beginning of year on the DIBELS showed no significant differences between intervention and comparison schools; at the end of the year, a statistically significant difference did exist, with a higher percentage of students at intervention schools in the at or above benchmark status compared to students at comparison schools. In Year 2, both the beginning and end of the year analyses showed a difference between the two groups, with a higher percentage of students at intervention schools in the "at or above benchmark" status compared to students at comparison schools. SAGE results in Year 1 showed a statistically significantly higher percentage of students at comparison schools met proficiency on the SAGE but no significant difference existed between intervention and comparison schools in Year 2.

Evaluators also analyzed special education qualification data. The percentage of students at Tier 3 Intervention schools qualifying for special education went up from 2015 to 2017, but then decreased slightly in 2018, with an overall increase of .5 percentage points over four years. The percentage of students at comparison schools qualifying for special education has increased every year from 2015 to 2018, with an overall increase of 1.4 percentage points over four years.

The percentage of intervention and comparison students qualifying for Special Education has increased from 2015 to 2018. Overall, from 2015 to 2018 the percent increase for intervention students was 8.5 percentage points, while the increase for comparison students was 7.6 percentage points. While comparison students qualifying for Special Education increased each year, intervention students increased from 2015 to 2016 then decreased from 2016 to 2017, but increased again from 2017 to 2018. Results for this analysis should be interpreted cautiously due to the unequal sample sizes for the groups each year.

District and school personnel agree training for Tier 3 Intervention programs has improved greatly. All districts engaged in training with the service provider during Year 1 of the grant prior to implementing the Tier 3 Intervention program. The intensity of the training varied by program, ranging from a two-day training prior to implementation (Sonday and SPIRE) to a very intensive model (Wilson). In Year 2, some districts continued to work with the service provider while others provided district-level training. In both cases, participants reported that the quality of the training improved because it included more modeling of lessons and implementation strategies, rather than a focus on the structure of the curriculum. Overall, 60% of participants rated the training an 8 or higher out of 10 on an effectiveness scale in Year 2, compared to 64% in Year 1. This rating demonstrates a high level of satisfaction. In addition, although there is a greater spread of scores in 2017-2018, the mean scores have improved slightly, primarily because of a greater proportion of participants rating the training a 10 in Year 2.

District personnel have also improved training and support for implementation. The support varies substantially by district in intensity. For example, one district has provided whole group professional development throughout the year, created an observation schedule where every person implementing the program is observed and has a chance to observe others two to three times a year, and built in opportunities for reflection. In addition, this district created video clips of different steps of the program, implementation strategies, and materials so teachers and paraeducators can access the video clips as needed. Another district has created monthly meetings for principals and instructional facilitators where they learn to support MTSS and their teachers, and a district coach visits each school month for targeted assistance. Two other districts have school-level instructional facilitators who provide additional support through professional development, modeling and observing of lessons, and reviewing data. Both districts have opportunities for paraeducators and teachers to meet during Professional Learning Communities to discuss the data. Finally, one district is continuing to work with the service provider, in an intensive program. In addition to this, a representative from the USBE has also provided targeted technical support to the districts. Overall, participants were pleased with the additional support provided by the district and state, noting that this was a change in practice.

Several contextual factors support and hinder implementation of the Interventions for Reading Difficulties Pilot Program. These include leadership commitment, teacher buy-in, time, reliance on paraeducators, and behavioral issues.

There are a number of emerging best practices that are in development. These include the use of data, ongoing embedded professional development, the development of an MTSS, and the implementation of an intervention period.

RECOMMENDATIONS

Based upon these findings, we offer the following recommendations:

Continue to address existing challenges. School and district personnel reported they are making substantial progress toward their goals in the Interventions for Reading Difficulties Pilot Program. They spent time addressing many of the challenges in Year 1, such as identifying students for program participation and developing an intervention schedule. Because the changes were made mid-year or at the end of the year, the data continue to show that some students participated in the program who did not meet the criteria, and schools were still

implementing intervention periods where lessons were not completed or were cut short. Continued support should be provided in this area, and it may be helpful for USBE personnel to check in with schools to ensure these issues are addressed in Year 3.

Develop a clearly articulated MTSS. By writing the grant and participating in grant activities, school and district personnel reported a greater understanding of MTSS and Tiered instruction. Two districts and one school have created an MTSS framework, which they have shared across the district/school, identifying the available support programs and criteria for entering and exiting the program. We recommend that all districts develop an MTSS framework to operationalize expectations. It may be helpful for districts to share resources or for technical assistance to be offered in this area.

Develop a plan for teachers to implement or learn the program. Teachers and paraeducators who have participated in the training report that it is effective and valuable. However, across most districts, paraeducators are mostly receiving the training and providing the Tier 3 Intervention. While teachers have become more familiar with the program by collaborating with paraeducators and some are learning some strategies from the program, which they are implementing in class, this is not happening universally. In addition, teachers are becoming more accepting of the program as they see the data of their student's improvement. However, it is important that teachers understand the program, so they can support the strategies. Providing teachers access to the service provider trainer or district level support will increase their understanding of the program and will help to improve continuity as students use the strategies they learn from participating in the Tier 3 program.

Develop an intervention period within the master schedule. Scheduling has continued to be a challenge in some schools and districts. However, schools in two of the districts have been able to create an intervention period where all students participate in a program aligned with their needs to accelerate learning. This has been beneficial, as students no longer feel singled out for their participation, and they do not miss instruction in other subject areas. We recommend other schools consider implementing an intervention period. They may consider reaching out to the schools that implemented it for support or seeking out technical assistance.

Provide classroom management strategies to paraeducators. Paraeducators reported it is difficult to address behavioral challenges that have occurred during the Tier 3 Intervention. We recommend that district and school personnel continue to work closely with the paraeducators to develop their classroom management strategies, to identify ways to engage the students, and to implement an effective reward system.

Share resources and learning across districts. School and districts have continued to improve implementation, and they have developed structures and supports that have supported implementing, including intervention periods, support videos, and MTSS processes. Other schools and districts are in process of developing these additional resources. It may be beneficial to bring together the schools and districts to share some of these resources/practices and to encourage peer learning.

Evaluate the continued use of the Wilson program. While four of the five districts have made gains, the district implementing the Wilson program has struggled because of the intensity of the training, the amount of time required to work one-on-one with a student, and the limited number

of students benefitting from the program. Some of the participating schools are beginning to switch to SPIRE, while others are continuing to utilize Wilson. However, it is unknown if teachers plan to continue to the Level II certification. Because of these difficulties, it may worthwhile to talk with school leaders about their plan for continuing with Wilson, where it fits with the MTSS, and if there are other approaches that may impact more students.