

Prepared by The Oregon Reading First Center

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Executive Summary

Background

This report summarizes the impact of Oregon Reading First on the English reading performance of English learners (ELs) after three years of implementation. The same structure and data analysis procedures used in the *Three-Year Report on Oregon Reading First Impact and Implementation*¹ were used in producing this report. The National Literacy Panel defines ELs as students who come from language backgrounds other than English and whose proficiency is not developed enough where they can profit fully from English-only instruction². ELs represent less than 20 percent of Oregon elementary school students, but over 30 percent of students in Oregon Reading First are ELs. Important reasons for a separate report on ELs are that they have clear instructional needs that are different from native English speakers and they represent a substantial percentage of the Reading First student population.

The number of schools represented in this report is 45, 33 schools in *Cohort A*, and 12 schools in *Cohort B*. Five schools in Cohort B were excluded from this report because they provided reading instruction in both English and Spanish to their Spanish-speaking ELs. Consequently, ELs in these schools were receiving less English reading instruction than the 12 other Cohort B schools. Overall, the percentages of minority students and students eligible for free or reduced lunch prices were highly similar in Cohorts A and B.

Three types of comparisons were the focus of this report. First, the reading performance of ELs across three successive years of Oregon Reading First implementation in Cohort A schools was analyzed. Second, the reading performance of ELs in Cohort A after three years of Reading First implementation was compared to the reading performance of ELs in Cohort B after one year of Reading First implementation. Third, the reading performance of ELs in Cohort A after three years of Reading First implementation. Third, the reading performance of ELs in Cohort A after three years of Reading First implementation.

The following questions addressed these three comparisons:

- 1. Has the performance of ELs in Cohort A schools improved over time?
- 2. Do schools with more experience with Reading First implementation (Cohort A after three years) get better outcomes with ELs than schools with less experience with Reading First implementation (Cohort B after one year)?
- 3. Is the reading gap between ELs and native English speakers in Oregon Reading First schools changing across years of Reading First implementation?

To answer these questions, performance on the following measures were examined: (a) DIBELS Nonsense Word Fluency (NWF) at the end of kindergarten; (b) DIBELS Oral Reading Fluency (ORF) at the end of grades 1, 2, and 3; (c) the Stanford Achievement Test-10th Edition

¹ http://oregonreadingfirst.uoregon.edu/

² p. 15, August & Hakuta, 1997

(SAT-10) at the end of kindergarten, first and second grades; and (d) the Oregon Assessment of Knowledge and Skills (OAKS) at the end of third grade. The DIBELS measures represent the most important benchmarks that predict student performance on the Oregon Statewide Reading Assessment in third grade. The total score of the reading subtests of the SAT-10 were used to determine grade level reading performance in kindergarten, first, and second grades. Grade level performance on this *primary outcome measure* was defined as reading at the 40th percentile or above. Being at high risk for reading difficulties (i.e., well below grade level) was defined as reading below the 20th percentile.

Grade level reading on the primary outcome measure in third grade was determined by student performance on the OAKS. A score of 210 was used to define grade level reading on the OAKS because it corresponded to the 40th percentile in the first year of Oregon Reading First, and thus provided a comparable standard that could be used with the SAT-10 standard. Across these measures, the evaluation used (a) mean performance scores, (b) the percentage of students reading at or above benchmark and grade level goals, and (c) the percentage of students at moderate or some risk and at high risk for reading difficulties to analyze reading performance.

Evidence addressing the validity of the use of the DIBELS measures indicates that with the exception of the fall of Kindergarten, the measures work well and comparable for ELs and non-ELs. For example, correlations between DIBELS measures, the SAT-10, and the OAKS reading measure for ELs and non-ELs (a) predicted equally well student reading performance, and (b) provided similar estimates of student reading proficiency when compared to other measures given at the same point in time. The available evidence indicates that DIBELS, the SAT-10, and the OAKS are valid measures to determine EL reading proficiency in the early grades. Published research studies corroborate these findings³.

To determine the impact of Oregon Reading First with ELs, effect sizes and odds/ratios were calculated. An effect size of 0.10 is considered small but educationally meaningful, an effect size of 0.15 to 0.35 is moderate in magnitude, and clearly warrants focus and attention. Effect sizes from 0.35 to 0.50 are considered moderately large, and 0.50 and above are considered large. These descriptions of effect size magnitudes are based on the analysis by Borman et al. (2003) in their examination of large-scale reforms in reading.⁴

Results

Has the performance of ELs in Cohort A schools improved over time?

In terms of the performance of Cohort A schools across years, in each grade, and on each measure, the mean performance scores for ELs increased from year 1 to year 3. The effect sizes comparing Year 3 to Year 1 suggested the impact was moderate to moderately large on all the DIBELS measures. The impact was also moderate on the SAT-10 in second grade and on the OAKS in third grade. It is important to note that one of the largest effect sizes was on the OAKS reading measure in Grade 3 comparing Year 3 to Year 1 (ES = 0.35).

³ For more research on this topic, see Baker & Good (1995); Baker et al. (2008); Fien et al. (2008), Gunn et al. (2000), Gunn et al. (2005).
⁴ The primary effect sizes we report are based on the student as the unit of analysis. This is comparable to what

⁴The primary effect sizes we report are based on the student as the unit of analysis. This is comparable to what Borman et al. (2003) did in examining the impact of large schoolwide reform efforts.

In addition, across all measures, the percentage of children reaching benchmark or grade level goals *increased* each year, and the percentage of children remaining at high risk *decreased*. For example, the odds of reading at grade level on the OAKS in third grade were 1.62 times greater in Year 3 than Year 1. In other words, in a hypothetical case where in Year 1, 100 ELs would have reached 210 on the OAKS, 162 students would have reached that goal in Year 3⁵, a substantial improvement.

In kindergarten and first grade the impact across years on the SAT-10 was not meaningful. This may be attributed, in part, to the fact that ELs who were performing significantly below grade level on the SAT-10 may have had very low English language proficiency skills reducing their odds of performing well on an outcome measure that requires substantial vocabulary knowledge and comprehension skills.

Do schools with more experience with Reading First implementation (Cohort A after three years) get better outcomes with ELs than schools with less experience with Reading First implementation (Cohort B after one year)?

In comparing the performance of Cohort A to Cohort B in the fall of Implementation Year 1, scores were highly similar indicating basic comparability between cohorts. However, performance of Cohort A ELs at the end of Year 3 was significantly higher than the performance of Cohort B students at the end of Year 1. This was true in all grades and on all measures. The effect sizes are statistically significant and moderate to moderately large in magnitude. The effect sizes indicate that the impact of Reading First on the reading performance of ELs is greater in experienced Reading First schools than in less experienced Reading First schools. Particularly striking is the large effect size in kindergarten (ES = .64), and in third grade on the OAKS (ES =.55). The comparison between Cohort A after 3 years of implementation with Cohort B after 1 year of implementation constitutes the best evidence of the value added of Oregon Reading First after multiple years of implementation.

In general, in every comparison between Cohort A after three years of implementation and Cohort B after one year of implementation, a *higher* percentage of ELs in Cohort A than Cohort B were reading at benchmark and grade level, and a *lower* percentage of ELs were at the highest level of reading risk. *In most cases, the odds of reaching benchmark or grade level were at least 1.5 times greater in Cohort A than Cohort B, and the odds of being at high risk for reading difficulties were 1.5 times greater in Cohort B than Cohort A.*

Is the reading gap between ELs and English native speakers in Oregon Reading First schools changing across years of Reading First implementation?

The reading performance gap between ELs and non-ELs needs to be considered in the context of the findings in the first two evaluation questions. In other words, the question is whether the strong impact Oregon Reading First has had overall is greater, lower, or equal for ELs and non-ELs. A stronger impact for ELs would mean that the reading gap is closing. A stronger impact for non-ELs would mean the gap is widening. A neutral impact would mean that Oregon Reading First is having a similar (positive) impact on ELs and non-ELs, and therefore

⁵This is a hypothetical case. It assumes the same number of students in Years 1 and 3.

the gap would be staying roughly the same over time. Performance differences between ELs and non-ELs were examined using two different techniques.

First, differences across Years 1, 2, and 3 on DIBELS measures and primary reading outcome measures were examined. A narrowing of the gap between ELs and non-ELs would be apparent if the performance differences in Year 3 were smaller than in Years 2 and 1. Second, the within-year progress students made, based on their level of risk at the beginning of the year, was examined. Changes in the reading gap between ELs and non-ELs were analyzed for three groups of students: (a) Students beginning the year at *high* risk for reading difficulties, (b) Students beginning the year at *moderate or some* risk for reading difficulties, and (c) Students beginning the year at *low* risk for reading difficulties.

Results indicated that the magnitude of the difference in reading performance between ELs and non-ELs remained roughly the same on DIBELS measures across three years of implementation of Reading First. It also remained roughly the same in second and third grade on the SAT-10 and the OAKS. In kindergarten and first grade, the size of the gap (favoring non-ELs) tended to grow as year of implementation increased. In terms of the percentage of students reading at grade level and the percentage of students at high risk for reading difficulty, the size of the difference between ELs and non-ELs did not appear to be changing in a consistent way across Reading First implementation years.

In terms of the impact of Oregon Reading First on ELs and non-ELs by risk category, the analysis indicates that the impact of Oregon Reading First in *decreasing* the level of risk for students in the high risk and moderate risk categories was similar for ELs and non-ELs across grades K-2, and across years. The exception was third grade, where it appears that ELs in the moderate risk category had a better chance of reducing their level of risk in Year 3 than non-ELs in the same moderate risk category.

More than 80 percent of students who began the year in the low risk category were still on track for successful reading at the end of the year. This was true for both ELs and non-ELs. In other words, these students made enough reading progress over the year to remain at low risk for long term reading difficulties. The important point is that once students are on track for successful reading outcomes, the chances are greatly in their favor that they will remain on track for successful reading. Conversely, moving students from moderate risk to low risk, or high risk to low risk appears to be a much more difficult transition. Another extremely important point is that this appears to be equally true for ELs and non-ELs.

Conclusions

Five major implications and recommendations can be derived from the analysis of the impact of three years of implementation of Oregon Reading First on ELs.

1. Schools with experience implementing Oregon Reading First were able to support the English reading development of ELs more effectively than inexperienced schools. Experience helped provide better support to schools in terms of leadership, staff professional development, and interpreting data from formative assessments to guide

instruction. Schools should be encouraged to implement school reforms based on explicit instruction of early reading skills.

- 2. It takes time to implement a school-wide reform effectively. For example, in the first year of Oregon Reading First, the focus of professional development was on the overall implementation of the School-wide Beginning Reading Model and this professional development included the entire school team (i.e., administrators, principal, coaches, and teachers)⁶. After three years of participation, the focuses of professional development shifted to helping coaches provide school-based professional development, support, and direction (e.g., conduct more focused classroom observations, provide teachers with highly specific training on the delivery of instruction and the implementation of different research-based programs). Over time, the shift in professional development toward classroom instructional issues increased the opportunities teachers had to provide effective instruction for students.
- 3. Providing professional development to teachers and instructional assistants on effective instructional strategies for diverse learners is key to increasing ELs academic achievement. Professional development trainings should include: (a) information to develop a deeper understanding of the core components of beginning reading (i.e., phonological awareness, phonics, fluency, vocabulary, and comprehension strategies; (b) strategies on how to provide explicit instruction by using visual models, verbal directions, full and clear explanations, and outlined steps; (c) practice on how to provide temporary scaffolding, or instructional supports for ELs (these scaffolding should be faded over time as students assume more control of their learning); (d) a careful sequencing of instruction that makes connections between new material and previously taught material overt; (e) eliciting general knowledge from students to help them understand and acquire new knowledge; and (f) reviewing materials sequentially and cumulatively with sufficient variety so that students do not memorize answers⁷.
- 4. Multiple years worth of data from Oregon Reading First provide strong evidence that a much higher percentage of ELs start kindergarten at risk for reading problems than native English speakers. Thus, it is important that all schools have a strong kindergarten program that focuses on the development of phonemic awareness and phonics in addition to vocabulary and language development. There is strong and sufficient empirical evidence that it is not necessary to wait until students have developed their English language skills to start teaching them reading skills.
- 5. Frequent progress monitoring can help guide the support ELs need to develop their reading skills. A premise of Oregon Reading First is that ALL students should reach benchmark goals at specific points in time across grades. It is likely that Cohort A schools after three years of implementing Oregon Reading First were following ELs closely and responding to data more promptly by: (a) regrouping students frequently according to their progress monitoring data, (b) increasing the amount of instruction for intensive students, (c) reducing the group size of small group instruction for intensive

⁶ See Baker et al. (2007), pp 21-22.

⁷ Coyne, Kame'enui, & Carnine (2007)

students to provide more opportunities to practice newly learned skills, and (d) ensuring that experienced teachers rather than inexperienced teachers provided instruction to ELs with the most intensive instructional needs.

Finally, when reading programs are effective for ALL students, it is more challenging to close the reading gap between non-ELs and ELs (because effective programs for non-ELs result in strong gains, which influences the "gap"). However, it is clearly possible to provide instruction so that a higher percentage of ELs are reading at grade level than is typically found. There is considerable evidence in this report that ELs benefit from the implementation of a School-wide Beginning Reading Model in which there is a strong commitment to increasing the level of reading achievement of ALL students in the classroom, across all classrooms in the school, across all schools within the district, and across all districts in the state.

Introduction

The purpose of this report is to analyze the impact of Oregon Reading First on the English reading performance of English learners (ELs). Providing effective reading instruction to ELs is critical, not only because the population of ELs in the U.S. is large and continues to increase rapidly, but also because the academic achievement of these students lags behind the performance of other students⁸. The National Literacy Panel defines ELs as "students who come from language backgrounds other than English and whose proficiency is not developed enough where they can profit fully from English-only instruction"⁹. Other terms used to describe ELs include English language learners, language minority students, second language learners, and Limited English Proficiency (LEP) students. Currently, the most accepted term is English Learners, which we will use throughout this report.

The growth of the EL school-age population is occurring throughout the U.S. In the 2004-05 academic year, approximately 5 million students (11 percent of all students) were classified as ELs and receiving services. When compared to the 2 million ELs receiving services in U.S. schools in 1993-94, the growth rate is significant, and it is expected to continue for the near future.¹⁰ Although the vast majority of ELs speak Spanish (80 percent), more than 450 different languages are spoken in the United States¹¹. The increase in the EL population, and the number of different languages represented, requires schools to meet the needs of a diverse student body with many different levels of English proficiency.

As with other states in the U.S., the EL population in Oregon has increased rapidly in the last decade. In 2006, 12 percent of the population in Oregon above age 5 spoke a language other than English at home¹². In Oregon Reading First schools, the EL population was considerably higher than the state average. In part, this is because the two criteria used to select schools for Reading First – poverty rates and low reading achievement – are more prominent in EL populations¹³. In Oregon Reading First Cohort A schools, which began implementation of Reading First in 2003, 32 percent of students were ELs in the 2004-05 academic school year, and 23 percent of students in the Cohort B schools included in this report, which began implementation of Reading First in 2005, were ELs in 2004-05. The demographic data in Table 1 shows that the percentage of minority students overall, and the percentage of students on free or reduced lunch is comparable across Cohorts A and B. The range in the percentage of ELs within each Reading First school was considerable. In some schools, more than 80 percent of all students were ELs, while in other schools there were no students who were ELs (see Table 1). Additional background information on Oregon Reading First can be found in the overall technical report.¹⁴ In this current report, the focus is specifically on the reading performance of ELs in Oregon Reading First schools. Three major questions will be addressed:

⁸ Perie, Grigg, & Donahue, 2005

⁹ p. 15, August & Hakuta, 1997 ¹⁰ NCELA, 2006

¹¹ Kindler, 2002

¹² http://quickfacts.census.gov/qfd/states/41000.html

¹³ Chapa & De La Rosa, 2004; National Council for Educational Statistics, 2005

¹⁴ See Baker et al., 2007

- 1. Has the performance of ELs in Cohort A schools improved over time?
- 2. Do schools with more experience with Reading First implementation get better outcomes with ELs than schools with less experience with Reading First implementation? (Cohort A after three years vs. Cohort B after one year)
- 3. Is the reading gap between ELs and English native speakers in Oregon Reading First schools changing across years of Reading First implementation?

In the next section, we describe Reading First and the method we used to conduct the analyses. Then, we present the impact of Oregon Reading First related to the three questions above. We conclude with a summary of our findings, and recommendations to increase the reading performance of ELs in the early grades.

	Coh	ort A ^a	Coł	nort B ^b
	Mean ^c	Range ^d	Mean	Range
Percent of Students in Major Categories				
Mobility ^e	23.2	10.4 - 32.6	18.2	12.9 - 27.8
Special Education	12.1	1.8 - 19.3	15.8	6.8 – 26.0
Free & Reduced lunch	74.8	54.5 - 94.5	67.2	47.2 - 92.0
English Language Learners	31.8	0 - 82.6	23.1	0 - 58.1
Minority	52.7	17.2 - 97.1	45.3	8.8 - 92.4
Percent of Students by Race/Ethnicity				
Black (not Hispanic)	9.2	0 - 67.7	11.6	0 - 69.5
American Indian/Alaskan Native	6.1	0 - 95.1	4.3	1.2 - 9.4
Asian/Pacific Islander	5.4	0 - 19.0	8.1	0.5 - 28.6
Hispanic	30.5	0.8 - 78.0	19.3	2.9 - 66.5
White	45.8	3.1 - 82.3	54.9	6.7 - 91.4

Table 1. Demographic Information by Cohort for the 2004-2005 School Year

Note. ^aBegan Reading First in 2003. ^bBegan Reading First in 2005. ^cThe mean represents the mean percentage of students per school. ^dThe range indicates the low and high percentages per school. ^eMobility is based on the number of students taking DIBELS tests in the fall and spring of the 2004-2005 school year. Students who were not assessed at both times were defined as mobile. The percentage represents the proportion of mobile students out of all students who participated in DIBELS testing. All other calculations were based on ODE summary statistics as reported on ODE's website.

Method

Description of Schools and Students

This report focuses on three types of comparisons. First, we compare the reading performance of ELs across three years of Oregon Reading First implementation in Cohort A schools. Second, we compare EL reading performance in Cohort A after three years of the implementation of Oregon Reading First versus Cohort B after one year of implementation of Oregon Reading First. Third, we compare EL reading performance versus English-only student reading performance in Cohort A schools.

Table 2 presents the number of districts, schools, and students in Cohort A and Cohort B in the 2004-05 school year. We chose the 2004-05 school year to provide an estimate of the number of students participating in Oregon Reading First because at the time this report was prepared, it represented the most recently available data from the Oregon Department of Education for all participating Oregon Reading First schools. Data for the analyses were collected during the first three years of the Oregon Reading First implementation (i.e., 2003-2004 [Year 01], 2004-2005 [Year 02], and 2005-2006 [Year 03]) and involved students in kindergarten, first grade, second grade, and third grade in Cohort A and Cohort B. Thirty-three schools in Cohort A were included in the analyses in the Year 01, 02, and 03. Twelve schools out of the seventeen schools in Cohort B were included in the analyses in Year 01. Five Cohort B schools were not included because these schools were implementing a model of reading instruction in which Spanish-speaking ELs (the vast majority of ELs in Oregon Reading First are Spanish speakers) were receiving reading instruction in both English and Spanish. As a result, ELs in these schools were not receiving the same amount of English reading instruction as the 12 other Cohort B schools where reading instruction was provided in English.

Approximately half of the schools in Cohort A were in large urban areas (16 schools), and the remaining schools were equally divided between mid-size cities with populations between 50,000 and 100,000 (8 schools) and rural areas (9 schools). Cohort B schools that provided reading instruction in English included 8 independent school districts located in most regions of the state. Half of the schools were in large urban communities (6 schools), and the remaining schools were located in rural areas (6 schools).

		Cohort	Aª	Cohort B ^b			
	Number	Number Mean ^c Range ^d		Number	Mean	Range	
Number of Districts	14			8			
Number of Schools	33			12			
Number of Students K-3	9493	288	153 - 477	2904	264	214 - 316	
Kindergarten	2429	74	40 - 121	646	59	37 - 82	
Grade 1	2394	73	36 - 124	765	70	56 - 93	
Grade 2	2363	72	28 - 113	761	69	50 - 85	
Grade 3	2307	70	44 - 129	732	67	50 - 79	

Table 2. Number of Districts, Schools and Students in Cohorts A and B

Note. Information on the number of students is based on the 2004-2005 school year. ^aBegan Reading First in 2003. ^bBegan Reading First in 2005. This table includes only the 12 schools included in the analysis. ^cThe mean represents the mean number of students per school. ^dThe range indicates the lows and highs across schools.

Table 3 presents EL demographic information for the total number of schools participating in Oregon Reading First during the 2004-05 school year. Although the majority of ELs are of Hispanic descent, Oregon has also experienced an increase in the number of ELs from other ethnic backgrounds, particularly Caucasian students and Asian & Hawaiian Pacific Islander. For example, in the kindergarten class of 2004-05, 73 percent of ELs in Oregon Reading First schools were Latino, 13 percent were Caucasian, and 10 percent were Asian. The number of male and female students is relatively similar across the grades with the exception of third grade where 56 percent of ELs were male. (Throughout this report we will use the terms Hispanic and Latino interchangeably.)

	Kindergarten		Gra	Grade 1		ade 2	Grade 3	
	n	percent	n	percent	n	percent	n	percent
Male	378	51.2	506	50.0	492	50.9	494	56.3
Female	361	48.8	507	50.0	474	49.1	383	43.7
Ethnicity								
Latino	537	72.8	678	67.3	640	66.0	584	66.7
Asian & Hawaiian		- -	0 -				-	0.0
Pacific Islander	72	9.7	95	9.4	91	9.4	70	8.0
American Indian	3	.4	70	7.0	73	7.5	61	7.0
African American	15	2.0	15	1.5	18	1.9	18	2.1
Caucasian	99	13.4	146	14.5	138	14.2	139	15.9
Other	12	1.6	3	.3	9	.9	3	.3

Table 3. Description of EL Students in Oregon Reading First (Based on 2004 – 2005 DIBELS Descriptive Data)

Schools in Oregon determine EL status following state guidelines. These guidelines include two major components. The first component is data from a home language survey where parents indicate that English is not the primary language spoken in the home. The second component is student performance on an English language proficiency measure. Students who score at a level indicating non-English proficiency or limited English language proficiency are designated as an EL (the federal designation is Limited English Proficiency). For example, a score of three or below on the Woodcock- Muñoz Language Survey (1993) is commonly used to determine EL status.

Oregon Reading First Implementation

Each Oregon Reading First school provided at least 90 minutes of daily reading instruction in English for all K-3 students. In general, within the 90-minute reading block, students received a minimum of 30 minutes of daily small-group, teacher-directed reading instruction. Instruction focused on the essential elements of beginning reading as defined in the NRP report (2000). That is, reading instruction focused on phonemic awareness, the alphabetic principle, fluency, vocabulary, and comprehension. Group size, curricular programs, and instructional emphases were determined according to student need based on screening and progress monitoring data. Students who were not making adequate reading progress were provided additional instructional support beyond the 90-minute reading block.

Each school had a full-time reading coach who worked closely with classroom teachers and school-based teams to support effective reading instruction. Intense professional development was provided to support teachers and instructional staff. Teachers had extended time to analyze student performance data, plan, and refine instruction. The range of teachers' years of experience in Oregon Reading First schools varied substantially. Some teachers had received their teaching credentials the year before working in an Oregon Reading First school while other teachers had more than 10 years of teaching experience. Regardless of teaching experience, Oregon Reading First provided professional development to all teachers and administrators that were directly involved in improving student reading achievement.

Three different measures were used to estimate the impact of Reading First on student reading performance.

Measures

Measures used to estimate the reading impact of Oregon Reading First were: (a) Dynamic Indicators of Basic Early Literacy Skills (DIBELS) to determine if students met key benchmark goals (indicators) in reading, (b) Stanford Achievement Test-10th Edition (SAT-10) to determine if students read at grade level at the end of kindergarten, first, and second grade, and (c) the Oregon Assessment of Knowledge and Skills (OAKS) to determine if students were reading at grade level by the end of grade 3.

Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

Two DIBELS measures—*Nonsense Word Fluency* (NWF) at the end of kindergarten, and *Oral Reading Fluency* (ORF) at the end of first, second, and third grade were used specifically to determine grade level performance. We used these two measures because they represent the most important DIBELS outcomes at the end of the four Oregon Reading First years, and they are direct measures of two of the five essential components of beginning reading achievement (understanding of the alphabetic principle and oral reading fluency).

All Oregon Reading First schools used the DIBELS Data System (DDS) to keep track of how well students were reading. This system provides benchmark target goals for performance on NWF at the end of kindergarten, and on ORF at the end of first, second, and third grade. We use the term *benchmark performance goals* to mark the point where students are *on track for successful reading outcomes* (i.e., they are at *low risk* for future reading problems). Below benchmark performance means there is either moderate risk or high risk of reading difficulty. The degree of risk provides an indication of the reading instruction students require. Generally, students at low risk should be able to stay on track for successful reading achievement if they are provided with the school's *core reading program*, and students at high risk require an *intensive intervention* if they are going to read at grade level.

The specific benchmark goals for the DIBELS measures are:

- 25 letter-sound segments read correctly at the end of kindergarten on Nonsense Word Fluency;
- 40 words read correctly per minute in grade level material at the end of first grade on Oral Reading Fluency;
- 90 words read correctly per minute in grade level material at the end of second grade on Oral Reading Fluency;
- 110 words read correctly per minute in grade level material at the end of third grade on Oral Reading Fluency;

DIBELS Nonsense Word Fluency

The DIBELS Nonsense Word Fluency¹⁵ measure is a standardized, fluency-based measure of student knowledge of the alphabetic principle or phonics. Students are presented with CV and CVC nonsense words arranged in a random order. Students are then asked to read the "words" one at a time. The nonsense word item pool was selected to represent the most frequently occurring letter sounds in the English language¹⁶. For example, probes include only short vowel sounds, and the letter "c" occurs only in the final position of a word where it always corresponds to the /k/ sound.

Students are instructed to provide the sounds of the letters or to read the whole word. For example, students can say the sounds in the word *tob*, /t/ /o/ /b/ or they can read the whole word "tob." Because the measure is fluency-based, students that read the whole nonsense word are generally able to read more words in one minute (and therefore obtain a higher score) than students that sound out each letter.

At the end of kindergarten, students reading correctly 25 or more total word segments on NWF are considered to be at *low risk* for reading difficulties (that is, on track for successful reading outcomes). Students scoring between 15 and 25 segments correctly are considered to be at *moderate risk* for reading difficulties, and students below 15 are considered to be at *high risk* for reading difficulties. The end-of-kindergarten risk categories are based on the performance of thousands of students participating in the DIBELS Data System in the 2001 - 2002 academic year. The decision rules are described in detail in Good, Kaminski, Simmons, Kame'enui, and Wallin (2002) and complete descriptive statistics are available in Good, Wallin, Simmons, Kame'enui, and Kaminski (2002). As described in Good, Simmons, and Kame'enui (2001), the NWF risk categories at the end of kindergarten is anchored by the judgment that reaching a score of 50 or more on NWF by the middle of first grade represents an important, attainable, and meaningful terminal goal on this type of phonics measure for children. The goal of 50 is not intended to be the goal for all students, or even the goal for an average student, but rather the goal for the lowest performing student in the middle of first grade in order to be considered on track for successful reading outcomes.

DIBELS Oral Reading Fluency

The DIBELS measure of ORF was developed following procedures used in the development of Curriculum-Based Measurement (CBM)¹⁷. DIBELS ORF measures are oneminute fluency measures that take into account accuracy and speed of reading connected text. Passages used to monitor student progress went through a readability analysis to reach comparable levels of difficulty at each grade¹⁸. In the standard administration protocol, students are administered 3 passages at each of three benchmark assessment points during the year (beginning, middle, and end of the year) and the median score at each point is used as the representative performance score. Reliability is very high on this measure, consistently above .90

¹⁵ NWF, Good & Kaminski (2002)

 ¹⁶ Carnine, Silbert, Kame'enui, & Tarver (2004)
 ¹⁷ Deno (1989); Shinn (1989).

¹⁸ Good & Kaminski (2002)

for alternate-form and test-retest¹⁹. Criterion-related validity estimates with comprehensive measures of reading performance, including direct measures of reading comprehension, are generally in the .70 to .90 range²⁰. The correlation between third-grade DIBELS ORF passages and the Oregon State Reading Assessment was estimated at .67²¹.

On DIBELS ORF, students reading 40 or more words correctly per minute by the end of first grade are on track to achieve second and third grade literacy goals and consequently are considered to be at *low risk* for reading difficulties. Students who read between 21 and 39 words correctly in grade level material are at *moderate risk* for reading difficulty and students who read below 20 words correct per minute are at *high risk* for reading difficulty²².

Stanford Achievement Test-tenth Edition [SAT-10] (Harcourt Educational Measurement, 2002).

To determine grade level reading performance in Kindergarten, first, and second grade, all Oregon Reading First students were administered the entire reading portion of the Stanford Achievement Test-10 $(SAT-10)^{23}$ at the end of the year. Grade level reading performance was defined as reading at the 40th percentile or above, based on grade level norms from the SAT-10 scoring manual. Being at moderate risk for reading difficulties (below grade level) was defined as reading between the 20th and 40th percentiles. Being at high risk for reading difficulties (well below grade level) was defined as reading below the 20th percentile on the SAT-10.

In May all students in kindergarten, first, and second grade were administered the SAT-10, which is group administered. The measure is not timed, although guidelines with flexible time recommendations are given. Kuder-Richardson reliability coefficients for total reading score were .97 at grade 1 and .95 at grade 2. The correlations between the SAT-10 Total Reading score and the Otis-Lennon School Ability Test²⁴, ranged from .61 to .74. The 10th version of the SAT-10 is the most comprehensive and psychometrically studied of any previous editions. Test content is aligned with state and national standards, including standards defined by the National Assessment of Educational Progress and the National Research Council²⁵. The normative sample is representative of the U.S. student population.

In kindergarten, the reading subtests of the SAT-10 are *Sounds and Letters, Word Reading*, and *Sentence Reading*. These subtests are typically administered in four sessions totaling approximately 120 minutes. The teacher-led Sounds and Letters subtest asks children to match words beginning or ending with the same sounds, recognize letters, and match letters with their corresponding sounds. During Word Reading, students need to choose the word, or group of words, corresponding to a picture or spoken word. The teacher administers approximately half of the items in this subtest, and the student completes half independently. Sentence Reading requires students to choose a picture corresponding to a printed sentence. Eight of these items

¹⁹ Good & Kaminski (2002)

²⁰ Marston (1989)

²¹ Fien et al. (2008); Good, Kaminski, Simmons, & Kame'enui (2001)

²² Good, Simmons, & Kame'enui (2001)

²³ Harcourt Brace Educational Measurement (2002)

²⁴ Harcourt Assessments (2003) 8th ed. San Antonio, TX: Author.

²⁵ Harcourt (2003)

complete a short story spoken by the examiner. The remaining 21 items are completed independently.

All four of the SAT-10 subtests were administered in first grade: word study skills, word reading, sentence reading, and reading comprehension. This entire battery takes approximately 155 minutes to complete. On the word study skills subtest, students have to identify compound words, words with similar endings, contractions, and words with a particular sound. Word reading requires students to independently select printed words that match a picture. On the Sentence Reading subtest, students select a picture that matches a sentence. Five of the thirty items in this subtest are teacher led and students at their own pace complete the remaining items independently. The more difficult items in the subtest have two sentences. Reading comprehension includes ten items that requires students to choose a picture that goes with the story. Twelve additional items requires students to choose words missing from a story that goes with a picture. The final portion of the reading comprehension subtest requires students to choose an answer to a comprehension question about a passage. Six different stories are presented with three items per story.

The second grade version of the SAT-10 included subtests for word study skills, reading vocabulary, and reading comprehension. The entire test takes approximately 110 minutes to complete. The word study skills subtest in the second grade test is similar to the first grade word study skills subtest. The reading vocabulary subtest requires students to choose the correct definition of the word used in a sentence, identify the sentence in which a target word has the same meaning as in a sample sentence, and identify a word that means the same as the target word used in a sentence. The reading comprehension subtest requires the student to identify correct answers to comprehension questions about a reading selection. This subtest includes forty items from nine reading selections across a variety of genres.

Oregon Assessment of Knowledge and Skills – Reading (OAKS-Reading)

Grade level reading performance in third grade was determined by student performance on the OAKS-Reading. This assessment is an untimed multiple-choice test administered yearly to all students in Oregon beginning in third grade. Reading passages representing literary, informative, and practical selections are included in the third grade test. These passages are intended to represent selections that students might encounter in both school settings and in other daily reading activities. Seven individual subtests require students to:

- Understand word meanings in the context of a selection,
- Locate information in common resources,
- Answer literal comprehension questions,
- Answer inferential comprehension questions,
- Answer evaluative comprehension questions,

- Recognize common literary forms such as novels, short stories, poetry, and folk tales, and
- Analyze the use of literary elements and devices such as plot, setting, personification, and metaphor.

Items are reviewed before field-testing by assessment experts for content validity and grade level appropriateness. Items are then field tested and calibrated for difficulty. Tests then include items that have passed field-testing, assessment specialists analyze student performance to be sure the new items are conforming to result specifications for difficulty and response patterns. The Oregon Department of Education reports that the correlation between the OAKS and the California Achievement Test was .78 and the correlation between the OAKS and the Iowa Test of Basic Skills was .75²⁶. The four alternate forms used in the OAKS demonstrated an internal consistency reliability (KR-20) of .95²⁷, which is very high.

Defining Grade Level Reading Performance on the OAKS

We used a score of 210 to define grade level reading performance on the Oregon Assessment of Knowledge and Skills in Reading (OAKS). The reason we used this standard instead of the standard of 201 (the first cut score defining proficiency), or 203 (the current cut score defining proficiency), is that we determined *meets proficiency* may mean something different from *reading at grade level*. In 2004, a score of 201 corresponded to the 16th percentile for all students who were administered the OAKS. We determined that a third grade standard for grade level reading performance that was comparable to the standard we used in kindergarten, first, and second grade (i.e., the 40th percentile on the SAT-10) was a score of 210 on the OAKS.

Reliability and Validity of DIBELS and SAT-10 Measures for ELs

A central issue in the assessment of ELs is the validity of the measures used to assess reading. For example, an important question is whether the DIBELS measures can predict equally well student reading performance for English only students and for ELs. A second important question refers to whether the SAT-10 and the OAKS provide the same estimates of reading proficiency for English only students and ELs. Comparable correlations involving the same measures would provide this evidence. Table 4 shows the correlations among reading measures used in Oregon Reading First. The shaded column (i.e., column 2 where scores in the beginning of kindergarten are correlated with later measures) indicates that the correlations between measures in the beginning of kindergarten and later measures of reading performance are significantly different for ELs and English only students implying that performance at the beginning of kindergarten may not be stable for ELs.

Row 7 (i.e., the row where the first grade end of year SAT-10 scores are correlated with the end of kindergarten and beginning of first grade NWF scores, and the end of first grade and second grade ORF scores) indicates that the correlations for ELs are significantly different than

²⁶ Oregon Department of Education (2005)

²⁷ Oregon Department of Education (2000)

the correlations for English only students at the end of first grade. However, all correlations in row 7 are moderate to strong for non-ELs and ELs.

All other differences in the correlations between ELs and non-ELs were minor indicating that (a) earlier measures were predicting equally well student reading performance for both ELs and non-ELs, and (b) measures given at the same point in time (e.g., the SAT-10 and the OAKS) were providing similar estimates of reading proficiency for both ELs and non-ELs. Other published research studies corroborate these findings²⁸.

 $^{^{28}}$ For more research on this topic, see Baker & Good (1995); Baker et al. (2008); Fien et al. (2008), Gunn et al. (2000), Gunn et al. (2005).

Table 4. Correlations between I minary measures for EL and non-EL Students									
	KB_LNF	KE_PSF	KE_NWF	1B_NWF	1E_ORF	2E_ORF	1_SAT10	2_SAT10	1_SATRC
KE_PSF	.14	-							
	.27								
KE NWF	.40	.49	_						
	.54	.46							
1D NWE	.37	.42	.75						
	.61	.40	.77	-					
1F ORF	.43	.42	.70	.73	_				
IL_ORI	.62	.36	.71	.76					
2E ORE	.29	.36	.57	.60	.82				
2E_ORI	.50	.36	.60	.62	.85	-			
1 \$4710	.43	.43	.67	.63	.66	.49			
1_5/(110	.61	.46	.75	.73	.75	.60			
2 SAT10	.37	.48	.64	.64	.84	.76	.70	_	
2_5/110	.56	.43	.64	.65	.82	.77	.75		
1 SATRC	.34	.45	.63	.64	.82	.73		.94	
I_SAIRC	.53	.41	.59	.61	.80	.75		.93	
2 SATRC	.28	.39	.47	.49	.66	.74	.56		.71
2_SATKC	.43	.39	.50	.48	.64	.72	.58		.71

Table 4. Correlations Between Primary Measures for EL and non-EL Students^a

Note. ^aThe top number in each cell represents the correlation for EL students; the bottom number represents the correlation for non-EL students. KB = beginning of kindergarten; KE = end of kindergarten; 1B = beginning of grade 1; 1E = end of grade 1; 2B = beginning of grade 2; 2E = end of grade 2; LNF = Letter Naming Fluency; PSF = Phoneme Segmentation Fluency; NWF = Nonsense Word Fluency; ORF = Oral Reading Fluency; SAT10 = total reading; SATRC = SAT-10 reading comprehension subtest. p < .01 for all correlations. Shaded cells indicate a significant difference between the correlation for ELs and non-ELs. All other correlations between ELs and non-ELs are nonsignificant. Correlations between different SAT-10 metrics administered concurrently are omitted because the metrics are not independent of one another.

Procedure

Analyses of Measures and Performance Standards

In this report, students are treated as the unit of analysis. That is, students in Cohort A will be compared to students in Cohort B. We compared the performance of ELs on the DIBELS, SAT-10, and OAKS measures in three ways: (a) overall mean performance score, (b) the percentage of students reading at grade level at the end of the year, and (c) the percentage of students at high risk for reading difficulties at the end of the year. We also calculated effect sizes, and odds ratios.

On the DIBELS measures, we examined the reading performance of ELs in relation to DIBELS benchmark goals on Nonsense Word Fluency at the end of kindergarten, and Oral Reading Fluency at the end of first, second, and third grade. On the SAT-10, and OAKS we examined the percentage of students who scored at or above the 40th percentile, and the percentage of students who scored below the 20th percentile. Performance at or above the 40th percentile is defined as reading at grade level or above; performance below the 20th percentile is defined as being at high risk for reading difficulties.

In calculating an effect size, the two means were subtracted from each other and divided by the pooled standard deviation. We interpret an effect size of 0.10 to be small but educationally meaningful—that is, something to take note of and think of as a potentially important impact. We interpret an effect size of 0.15 to 0.35 as roughly moderate in magnitude, and clearly warranting our focus and attention. Effect sizes from 0.35 to 0.50 are considered moderately large, and 0.50 and above are considered large. These descriptions of effect size magnitudes are based on the analysis by Borman et al. (2003) in their examination of large-scale reforms in reading.²⁹

We also present odds ratios for analyzing the odds or chances of students performing better in one group or another strictly by being a member of one group or the other. For instance, if there was no difference between the percentage of students reaching benchmark goals in Cohort A versus Cohort B the odds ratio would be 1.0 indicating that a child would have the same chances of reaching benchmark goals in either cohort. However, when the odds of reaching benchmark goals are higher in the first group than the second, the odds ratio will be greater than 1.0 indicating that a child would have a higher chance of reaching benchmark goals in Cohort A than in Cohort B. Odds ratios above 1.0 that are approximately 1.20 or higher are said to represent a meaningful difference between the two groups. When the odds of being in a particular group are smaller in the first group than the second, the odds ratio will be less than 1.0. Odds ratios below 1.0 that are approximately 0.85 and lower are said to represent a meaningful difference between the groups.

²⁹The primary effect sizes we report are based on the student as the unit of analysis. This is comparable to what Borman et al. (2003) did in examining the impact of large schoolwide reform efforts.

Results

This section presents the results of the analyses of the evaluation questions.

Has the Performance of Students in Cohort A Improved Over Time?

Table 5 shows basic mean performance data of ELs in Oregon Reading First Cohort A in Years 1, 2, and 3. The table shows the change in mean scores over time in each grade K-3, on four different reading measures: two DIBELS measures (NWF administered in kindergarten and ORF administered in first, second, and third grade), and two outcome measures (the SAT-10 administered at the end of kindergarten, first, and second grade, and the Oregon Assessment of Knowledge and Skills (OAKS) administered at the end of third grade). In the right part of the table the magnitude of change that has occurred is presented as an *effect size*, which we discuss and interpret below. *The effect size is the impact Reading First has had with successive groups of ELs in Cohort A schools*.

The table shows that in each grade, and on each measure, mean performance scores for ELs have increased from year 1 to year 3. In kindergarten for example, the average score of students on NWF at the end of the year has increased from 25.21 in year 1, to 33.22 in year 3. On the SAT-10 in second grade, average scores have increased from 564.57 to 570.00 to 574.42 across Years 1, 2, and 3, respectively.

The performance scores allow us to determine *overall* whether children in Reading First schools are reading better each year. Table 5 tells us that the answer to this question is yes. The strength of these increases—in other words, how large these changes are—is indicated by the effect sizes.

The first thing to note about the effect sizes in Table 5 is that effect sizes on DIBELS are generally larger than the effect sizes on the primary outcome measures. In some ways this is to be expected. DIBELS measures are collected regularly throughout the year and Reading First schools focus on making instructional adjustments that lead to increased performance on the DIBELS measures used to monitor student reading progress. Because the primary outcome measures are only collected at the end of the year, teachers are not making instructional adjustments based on ongoing performance on the primary outcome measure. It is interesting to note, however, that one of the largest effect sizes is for performance on the OAKS assessment in Grade 3.

A related issue is that the primary outcome measure is intended to represent a comprehensive measure of reading in which multiple components of reading proficiency are assessed. Generally, instructional adjustments should have a smaller impact on comprehensive measures of reading than on measures of specific skills. Although the impact may be less, there is still an important relation between comprehensive measures of reading and specific skill measures of reading. If students are improving in overall reading proficiency, improvements

should be reflected not only on specific skill measures of reading but also on comprehensive measures of reading³⁰.

³⁰ Baker, et al. (2008)

		Implementation Year							
	1 (200	3 - 04)	2 (200	94 - 05)	3 (2005 - 06)			Effect Sizes	
Reading Performance Measure	Mean	SD	Mean	SD	Mean	SD	$Y2 - Y1^a$	Y3 – Y2	Y3 - Y1
DIBELS Measures									
Nonsense Word Fluency									
Kindergarten	25.21	17.11	25.61	17.45	33.22	17.45	.02	0.44***	0.46***
Oral Reading Fluency									
Grade 1	35.63	26.72	40.71	29.24	42.52	30.10	0.18***	0.06	0.24***
Grade 2	67.72	38.48	75.77	36.63	84.42	37.08	0.21***	0.23***	0.44***
Grade 3	89.38	36.32	91.62	36.64	99.42	34.21	0.06	0.22***	0.28***
			Prima	ry Outcon	ne Measure	es			
SAT-10									
Kindergarten	462.22	36.40	459.79	34.09	465.43	34.75	-0.07	0.16**	0.09
Grade 1	523.12	38.01	528.37	39.43	527.70	41.51	0.14*	-0.02	0.12*
Grade 2	564.57	36.00	570.00	37.24	574.42	37.62	0.15*	0.12*	0.27***
Oregon Statewide Assessment									
Grade 3	203.54	10.48	206.18	8.80	206.91	8.66	0.27***	0.08	0.35***

Table 5. Performance of ELs Over Time on Key DIBELS Measures and on Primary Outcome Measures (Cohort A)

Note ^a Y1 represents the first year of implementation; Y2 the second year; and Y3 the third year. $*p \le .05$, $**p \le .01$, $***p \le .00$

In Table 6, we translated the performance scores of ELs into percentages of students meeting key benchmark goals on DIBELS and grade level performance goals on the SAT-10 and on the OAKS. The major purpose of Reading First is to help all students read at grade level by the end of third grade. Consequently, the most important percentage in Table 6 is the percentage of ELs in third grade who are reading at grade level as measured by the OAKS. Table 6 shows that in Year 1, 26.1 percent of ELs scored at or above 210 points, which was the cut score we used to define grade level reading performance on the OAKS. In Years 2 and 3, 36.4 percent of ELs scored at or above 210 indicating a significant increase in the percentage of ELs scoring above 210.

Another important consideration in Table 6 is that across measures and years, the percentage of children reaching benchmark on DIBELS goals or reading at grade level increased from Year 1 to Year 3. This is largely the pattern we would predict given that in Table 5 the mean scores also increased systematically. However, because the interpretation of mean scores may not necessarily explain whether students are reading at grade level at the end of the year, increases in the percentage of students meeting a target reading goal is not guaranteed. Thus, the across-the-board percentage increase of students reaching benchmark goals from Year 1 to Year 3 is an important pattern because it indicates that there is an increase in the percentage of students reaching at or above grade level on the SAT-10 and OAKS across years.

Related to this systematic increase is the fairly consistent decrease in the percentage of students reaching benchmark goals and reading at grade level as students move up in grade. In most cases these decreases are relatively minor but in a couple of cases they are quite large. In trying to interpret these grade level changes, it is critical to keep in mind that the measures being used change in kindergarten to first grade, from NWF to ORF, and in second grade to third grade, from the SAT-10 to OAKS. Thus, changes in percentages in these grades may be attributable to changes in the types of measures used, as well as changes in the performance standards used at the end of the year to determine grade level or benchmark goal attainment.

In Table 6 we have also included the odds ratio statistic for children reaching benchmark goals and grade level performance in Year 1 versus Year 2 versus Year 3. Odds ratios greater than 1.0 indicate a positive impact for Oregon Reading First. That is, the odds for reaching the benchmark goals and grade level performance are increasing each year. Odds ratios below 1.0 indicate a negative impact. *All of the odds ratios comparing Year 1 and Year 3 in Table 6 are above 1.0, indicating a consistent pattern of positive impact of Oregon Reading First in terms of the percentage of children reaching desired levels of reading performance. All but one of these odds ratios are statistically significant. For example, the odds of children reaching the NWF benchmark goal in kindergarten are 2.39 times greater in Year 3 than Year 1. The odds of reading at grade level on the OAKS in third grade are 1.62 times greater in Year 3 than Year 1. In other words, in a hypothetical case where in Year 1, 100 ELs reached 210 on the OAKS, in Year 3, 162 students would have reached that goal³¹, a substantial improvement.*

³¹This is a hypothetical case. It assumes the same number of students in Years 1 and 3.

	Im	plementation yea	ar	Odds Ratios							
Reading Performance Measure	1 (2003-04)	2 (2004-05)	3 (2005-06)	Y2 ^a v. Y1	Y3 v. Y2	Y3 v. Y1					
DIBELS: Percent Reaching Benchmark											
Nonsense Word Fluency	Nonsense Word Fluency										
Kindergarten	50.1	48.0	70.6	0.92	2.60***	2.39***					
Oral Reading Fluency											
Grade 1	35.1	44.1	44.3	1.46***	1.01	1.47***					
Grade 2	29.3	37.8	48.1	1.46**	1.53***	2.24***					
Grade 3	26.5	32.1	43.1	1.31	1.60***	2.09***					
Primar	ry Outcome Meas	ure: Percent at c	or above Grade I	Level (40 th Perce	entile)						
SAT-10											
Kindergarten	48.3	42.1	50.9	0.78*	1.43**	1.11					
Grade 1	32.4	39.2	38.8	1.34*	0.98	1.32*					
Grade 2	30.3	32.9	39.9	1.13	1.35**	1.52***					
Oregon Statewide Assessment											
Grade 3	26.1	36.4	36.4	1.62***	1.00	1.62***					

Table 6. Percent of ELs Reaching Benchmark Goals and Reading at Grade Level Across Years

Note. ^a Y1 represents the first year of implementation; Y2 the second year; and Y3 the third year. $*p \le .05$, $**p \le .01$, $***p \le .001$

Table 7 presents the percentage of students at high risk for reading problems (substantially below grade level performance). On the primary outcome measure, these are students who are reading below the 20th percentile. A major goal of Reading First is to systematically reduce the percentage of students in this category. In Table 7, odds ratios greater than 1.0 indicate a positive impact for Oregon Reading First across the years. For example, Table 7 shows that the percentage of students at-risk on NWF in kindergarten was 2.53 times greater in Year 1 than in Year 3. In third grade, the odds of students reading below grade level were 2.15 greater in Year 1 than Year 3. Thus, Table 7 tells us that Oregon Reading First schools in Cohort A are reducing the percentage of ELs at the highest level of reading risk, particularly in first, second, and third grade. The percentage drop is most dramatic on the DIBELS measures but the decreases are also impressive on the primary outcome measures in second and third grades. In kindergarten and first grade the impact of Reading First across years on the SAT-10 was not meaningful. This may be attributed, in part, to the fact that ELs who are performing significantly below grade level on the SAT-10 may have very low English language proficiency skills reducing their odds of performing well on an outcome measure that requires substantial vocabulary knowledge and comprehension skills.

In general, we can conclude that Cohort A schools are accomplishing two of the most important Reading First objectives in relation to ELs: they are increasing the percentage of ELs reading at grade level and decreasing the percentage of ELs at the highest levels of risk for reading difficulties. Program impact appears to be largest in second and third grade.

	Im	plementation Yea	ar	Odds Ratios						
Reading Performance Measure	1 (2003-04)	2 (2004-05)	3 (2005-06)	Y1 ^a v. Y2	Y2 v. Y3	Y1 v. Y3				
DIBELS: Percent At-Risk										
Nonsense Word Fluency										
Kindergarten	29.9	29.3	14.4	1.03	2.46**	2.53**				
Oral Reading Fluency										
Grade 1	34.0	29.4	25.5	1.23	1.22	1.51**				
Grade 2	52.9	41.4	32.0	1.59**	1.50**	2.39**				
Grade 3	35.7	34.8	25.6	1.04	1.55**	1.62**				
Primary Ou	utcome Measure: P	ercent Significan	tly Below Grade	Level (20 th Perc	centile)					
SAT-10										
Kindergarten	29.5	29.3	24.7	1.01	1.27	1.28				
Grade 1	39.0	33.7	36.6	1.26	0.88	1.10				
Grade 2	44.0	38.1	34.7	1.28*	1.16	1.48**				
Oregon Statewide Assessment										
Grade 3	44.9	31.6	27.4	1.76**	1.22	2.15**				

Table 7. Percent of ELs at Highest Level of Risk on Key Benchmark Goals and in Terms of Grade Level Reading Performance

Note. ^a Y1 represents the first year of implementation; Y2 the second year; and Y3 the third year. $*p \le .05$, $**p \le .001$

Do Experienced Schools Get Better Outcomes With ELs Than Inexperienced Schools: Cohort A After Three Years Compared to Cohort B After One Year?

Table 8 presents information on performance of ELs reading at benchmark levels and being at high risk for reading difficulties in Cohorts A and B in the fall of their first year of implementing Oregon Reading First. For Cohort A this was the 2003-04 school year. For Cohort B this was the 2005-06 school year. In both cohorts, the percentage of ELs who began kindergarten at benchmark was 5 percent. This low percentage of students at benchmark level in kindergarten can be explained, in part, by the fact that children were just starting school and that English was not their first language. However, the low percentages of students at benchmark levels of performance in the other grades (less than 20 percent), and the high percentages of ELs at high risk for reading difficulties reflects some of the major challenges associated with the goals of Oregon Reading First.

The odds ratios in column 4 of Table 8 indicate that an EL had roughly the same chance of being at benchmark in a Cohort A versus a Cohort B school in the beginning of the first year of implementation of Reading First with the exception of first grade. In first grade, ELs in Cohort B had a higher chance of being at benchmark in the beginning of the first year of implementation of Reading First than first grade ELs in Cohort A. Columns 5 and 6 of Table 8 indicate that across grades more than 55 percent of ELs started the first year of the project at high risk in Cohort A and Cohort B schools.

The odds ratios in column 7 of Table 8 indicates that in kindergarten, first, and second grade, ELs had roughly the same chance of being at risk in the fall of implementation Year 1 in a Cohort A school as in a Cohort B school with the exception of third grade. In third grade, ELs in Cohort A had a lower chance of being at high risk in the fall of implementation of Year 1 than ELs in Cohort B.

	Percent Re	eaching Ber	nchmark Goals	Percent At High Risk			
			Odds Ratios			Odds Ratios	
	Cohort A	Cohort B	B/A	Cohort A	Cohort B	A/B	
Kindergarten	5.2	5.2	1.00	60.5	61.7	0.95	
Grade 1	15.6	18.2	1.21	56.9	59.1	0.91	
Grade 2	18.5	17.8	0.95	64.9	66.9	0.91	
Grade 3	17.5	15.9	0.89	58.0	62.9	0.82	

Table 8. Percent of ELs Who Reached Benchmark Goals on DIBELS Measures, and Percent of ELs at High Risk for Reading Difficulties in the Fall of Implementation-Year 1

Table 9 presents the performance of ELs at the end of Year 3 in Cohort A compared to the performance of ELs at the end of Year 1 in Cohort B. Performance of Cohort A students at the end of Year 3 was significantly higher than the performance of Cohort B students at the end of Year 1 for all grades and on all measures. *The effect sizes are statistically significant and moderate to moderately large in magnitude*. The effect sizes indicate that the impact of Reading First on the reading performance of ELs is greater in experienced Reading First schools than in less experienced Reading First schools.

Table 9. Performance in Cohort A at the End of Implementation Year 3 and Cohort B at the End of Implementation Year 1 for ELs

	Cohort A	Year 3	Cohort B Year 1		Effect Sizes
Reading Performance Measure	Mean	SD	Mean	SD	Cohort A Y3 – Cohort B Y1
	DIBE	LS Measures			
Nonsense Word Fluency					
Kindergarten	33.09	17.48	20.77	20.79	0.64**
Oral Reading Fluency					
Grade 1	42.30	30.05	29.51	21.90	0.49**
Grade 2	84.25	37.21	68.23	36.49	0.43**
Grade 3	98.99	34.31	78.08	38.67	0.57**
	Primary C	outcome Mea	sures		
SAT-10					
Kindergarten	465.08	34.97	452.71	38.26	0.34**
Grade 1	527.42	41.46	516.85	39.11	0.26*
Grade 2	574.23	37.82	559.53	36.00	0.40**
Oregon Statewide Reading Assessment					
Grade 3	206.80	8.73	201.69	9.91	0.55**

Note. $*p \le .01$, $**p \le .001$

Table 10 presents the percentage of ELs reaching reading benchmarks and grade level goals in Cohort A in Year 3 versus Cohort B in Year 1. Cohort A schools had a higher percentage of ELs reaching benchmark goals and grade level reading goals in all grades and on all measures. For example, in kindergarten 70 percent of ELs in Cohort A reached the benchmark goal on NWF at the end of Year 3 compared to 39 percent of ELs in Cohort B at the end of Year 1. In addition, the percentage of ELs at high risk in kindergarten at the end of Year 3 in Cohort A schools (15 percent) was significantly lower than the percentage of ELs at high risk in kindergarten at the end of year 1 in Cohort B schools (46 percent). The odds ratios across all grades indicate that the odds of ELs reaching benchmark goals and reading at grade level was substantially higher in Cohort A schools after three years of implementation than in Cohort B schools after one year of implementation. Conversely, with the exception of first grade on the SAT-10, across all grades the odds of ELs being at high risk at the end of the year was substantially higher in Cohort B schools after one year of implementation.

In summary, the effects of the impact of RF on ELs reading performance was substantial at the end of Year 3 in Cohort A schools compared to Cohort B schools at the end of Year 1, indicating that experience in the implementation of RF is beneficial to ELs. This finding is important because it indicates that ELs can benefit from a reading program that focuses on English reading acquisition from the earliest grades.

8	Perc	ent Reaching (Goals	Per	Percent At High Risk		
	Cohort A	Cohort B	Odds Ratio	Cohort A	Cohort B	Odds Ratio	
Reading Performance Measure	Year 3	Year 1	A3 v. B1	Year 3	Year 1	B1 v. A3	
DIBELS		Lowest Risk			Highest Rist	k	
Nonsense Word Fluency							
Kindergarten	70.3	39.0	3.70**	14.7	46.0	4.95**	
Oral Reading Fluency							
Grade 1	43.8	26.9	2.12**	25.5	43.1	2.21**	
Grade 2	48.0	28.1	2.36**	32.2	50.4	2.14**	
Grade 3	42.6	23.8	2.37**	26.4	49.7	2.76**	
Primary Outcome Measure	At or	Above 40 th Per	centile	Below 20 th Percentile			
SAT-10							
Kindergarten	50.4	35.0	1.89*	25.7	40.0	1.93*	
Grade 1	38.4	25.4	1.83*	36.8	45.4	1.43	
Grade 2	39.8	23.7	2.13**	34.9	47.4	1.68*	
Primary Outcome Measure	At or Above 40 th Percentile			Below 20 th Percentile			
Oregon Statewide Reading Assessment							
Grade 3	36.2	19.7	2.31**	27.9	53.1	2.92**	

EL Technical Report 35 Table 10. ELs Reaching Goals and at High Risk at the End of Year 3 in Cohort A and the End of Year 1 in Cohort B

Note. $*p \le .01, **p \le .001$

Is Oregon Reading First Having an Impact on the Reading Achievement Gap Between English Learners and Non-English Learners?

There are a number of ways to consider the reading gap between English learners (ELs) and non-ELs (non-ELs) in the context of Oregon Reading First. Typically, the magnitude of an achievement gap between two groups of students is examined at a single point in time, and attention is drawn to how much change in the gap there is over time. A major question is how the gap changes, and in the case where the academic performance of one group of students is compared to another, whether the gap narrows, expands, or remains stable over time.

In considering the reading gap between ELs and non-ELs, the case is complicated considerably by the finding that Oregon Reading First is having a positive impact on student reading outcomes overall³². In addition, in this report thus far, the finding is that Oregon Reading First is having a positive impact on ELs over time. As Cohort A gains experience implementing Reading First, the outcomes improve for ELs. When experienced Cohort A schools (three years of implementation) are compared to less experienced Cohort B schools (one year of implementation), the differences systematically favor Cohort A across grades and measures.

The question of the gap between ELs and non-ELs must be analyzed in the context of the findings in the first two evaluation questions. Thus, the reading gap question becomes whether the strong impact Oregon Reading First has had overall on students is greater, lower, or equal for ELs compared to non-ELs.

A stronger impact for ELs will mean that the reading gap is closing. A stronger positive impact for non-ELs will mean the gap is widening. A neutral impact will mean that Oregon Reading First is having a similar positive impact on ELs and non-ELs, and therefore the gap is staying roughly the same.

The following changes in performance over time will be used to examine the reading gap between ELs and non-ELs. First, we examine performance differences between ELs and non-ELs across Years 1, 2, and 3. We examine performance differences on NWF in Kindergarten, ORF in first, second, and third grade, the SAT-10 in K-2, and the OAKS in third grade. Across Years 1-3, a narrowing of the gap will be apparent if the performance differences in Year 3 are smaller than Years 2 and 1.

Second, we look at changes in the percentage of students reaching grade level performance goals. A narrowing of the gap will be apparent if the difference between ELs and non-ELs reaching grade level goals is smaller in year 3 than Years 2 and 1. Similarly, we examine changes in the percentage of students who remain at high risk for reading problems at the end of the year. If the gap between ELs and non-ELs is smaller in Year 3 than Years 2 and 1, this will provide support that the reading gap is being reduced over time.

One of the complexities in examining the achievement gap between ELs and non-ELs is that not only do ELs start lower than non-ELs at the beginning of any point in time analysis, but

³² <u>http://oregonreadingfirst.uoregon.edu/</u>

also more ELs are at elevated levels of reading risk than non-ELs. The purpose of reading interventions, of course, is to provide reading instruction for at-risk students so they can make progress in catching up to their peers, but comparing growth of two groups of students who begin at different achievement levels presents interpretation difficulties. One way to address this issue is by comparing the progress of two groups based on their degree of risk at the beginning of the analysis period. For example, if ELs and non-ELs begin in the fall of grade 1 on track for successful reading outcomes, the question becomes whether the Oregon Reading First program provides instruction for both groups that allows the same percentage of students to remain on track at the end of the year.

Thus, we chose to examine as a second major technique the within-year progress students made based on their level of risk at the beginning of the year. The advantage in this type of analysis is that comparisons can be made between groups of students who are beginning at a similar achievement point. For this report, we analyze changes in the reading gap between ELs and non-ELs for three groups: (a) those beginning the year at *high* risk for reading difficulties, (b) those beginning the year at *moderate* risk for reading difficulties, and (c) those beginning the year at *low* risk for reading difficulties.

In examining changes in the gap for ELs and non-ELs for each of these groups, we focus on the percentage of students who substantially reduced their degree of reading risk on a range of measures, given their risk status at the beginning of the year.

Absolute Performance Across Years. In Table 11, we present the reading performance of ELs and non-ELs on a range of outcome measures. The performance of both ELs and non-ELs increased each year, supporting the overall positive impact of Reading First with ELs. As expected, there is also a difference in the reading performance between ELs and non-ELs, with non-ELs performing consistently higher each year. This is presented in the table as an effect size comparing non-ELs with ELs.

Table 11 also shows whether the difference in the reading performance is narrower, wider, or roughly the same across years. In absolute terms, for example, the mean difference in performance on NWF in kindergarten, is 4.7 correct phoneme segments in Year 1, 7.7 in Year 2, and 7.8 in Year 3, favoring non-ELs versus ELs. Letter subscripts are used to indicate when the change in the magnitude of the difference is statistically significant for one year compared to another. When two mean difference scores have the same subscript, it means the size of the difference is not statistically significant. Thus, on the DIBELS measures, none of the mean score differences are statistically significant. The only statistically significant differences occur on the SAT-10 measures in kindergarten and first grade. In kindergarten, the gap is larger in year 3 than year 1. In first grade, the gap is larger in years 2 and 3 than in year 1.

In summary, the difference in reading performance between ELs and non-ELs is statistically significant each year, as predicted. The magnitude of the difference remains roughly the same on DIBELS measures across three years of implementation of Reading First. It remains roughly the same in second and third grade on the SAT-10 and the OAKS. In kindergarten and first grade, the size of the gap tends to be larger as years of implementation increase.

	Differen	ice in mean	scores	Effect	Effect Sizes (non-EL/EL)		
Reading Performance Measure	Year 1	Year 2	Year 3	Year1	Year 2	Year 3	
Nonsense Word Fluency							
Kindergarten	4.7 _a	7.7 _a	7.8 _a	0.25*	0.41*	0.40*	
Oral Reading Fluency							
Grade 1	10.4 _a	11.3 _a	15.7 _a	0.34*	0.35*	0.48*	
Grade 2	13.9 _a	12.2 _a	9.4 _a	0.36*	0.32*	0.25*	
Grade 3	12.4 _a	13.2 _a	11.1 _a	0.33*	0.36*	0.32*	
SAT-10							
Kindergarten	18.9 _a	26.3 _{ab}	29.6 _b	0.46*	0.64*	0.71*	
Grade 1	20.8 _a	23.9 _b	32.9 _c	0.50*	0.55*	0.74*	
Grade 2	23.5 _a	23.4 _a	23.8 _a	0.59*	0.58*	0.61*	
Oregon Statewide Assessment							
Grade 3	7.1 _a	5.7 _a	6.2 _a	0.64*	0.58*	0.66*	

Table 11. Difference in Performance of ELs and non-ELs at the End of Each Implementation Year

Note. $p \le .001$. Differences in the same row that do not share subscripts differ at p < .05 (i.e., the 95 percent confidence intervals do not overlap.)

Changes in the percentage of students reaching benchmark and grade level reading goals. In Table 12, we present data on the percentage of ELs and non-ELs that met grade level reading performance standards. In all cases, as expected, a higher percentage of non-ELs than ELs reached reading benchmark goals and grade level reading goals. On NWF in kindergarten, the difference is significantly greater in Year 2 versus Year 1, and on ORF in first grade the difference is significantly greater in Year 3 compared to Year 2. Otherwise, on DIBELS, changes in the magnitude of the difference are the same across years.

In examining the percentage of students reaching grade level reading goals on the SAT-10 and the OAKS, evidence for a change in the size of the gap occurs in kindergarten only. In kindergarten, the difference in the percentage of non-ELs reaching grade level reading performance compared to ELs is significantly greater in Years 2 and 3 compared to Year 1. In first, second, and third grade, the percentage of non-ELs reading at grade level each year is greater than the percentage of ELs reading at grade level, but the magnitude of the difference is roughly the same across years.

Table 13 presents the percentage of ELs and non-ELs that are at high risk for reading difficulties at the end of each year. As expected, a larger percentage of ELs are at high risk on both DIBELS measures and the primary outcome measures than non-ELs. The odds ratios reflect this pattern. In first grade on the SAT-10, the percentage of ELs at high risk for reading difficulties, compared to non-ELs is larger in Year 3 than in Years 1 and 2. The difference between Years 1 and 2 is not significant. We did not find evidence in second and third grades that the size of the gap changed across years on DIBELS or the primary outcome measures.

Tables 12 and 13 suggest that in terms of the percentage of students reading at grade level and the percentage of students at high risk for reading difficulty, the size of the difference between ELs and non-ELs does not appear to be changing predictably across Reading First implementation years. However, the magnitude of the difference within each year and across measures warrants serious attention.

	Difference	e in percent	meeting					
		goals		Odds Ratio (non-EL/EL				
Reading Performance Measure	Year 1	Year 2	Year 3	Year1	Year 2	Year 3		
Nonsense Word Fluency								
Kindergarten	7.6	17.5	9.7	1.36 _a *	2.05 _b **	1.70 _{ab} **		
Oral Reading Fluency								
Grade 1	13.3	9.6	22.1	1.73 _{ab} **	1.47 _a **	2.49 _b **		
Grade 2	14.7	12.6	9.9	1.89 _a **	1.67 _a **	1.49 _a **		
Grade 3	15.1	14.9	10.8	1.97 _a **	1.87 _a **	1.54 _a **		
SAT-10								
Kindergarten	13.8	25.4	23.1	1.75 _a **	2.86 _b **	2.74 _b **		
Grade 1	20.4	20.6	29.1	2.34 _a **	2.32 _a **	3.35 _a **		
Grade 2	23.7	26.3	23.8	2.70 _a **	2.96 _a **	2.65 _a **		
Oregon Statewide Assessment								
Grade 3	27.9	22.9	26.6	3.32 _a **	2.54 _a **	2.98 _a **		

Table 12. Difference in the Percentage of ELs and non-ELs Meeting Benchmark Goals at the End of Each Implementation Year

Note. Odds ratios in the same row that do not share subscripts differ at p < .05 (i.e., the 95 percent confidence intervals do not overlap). * $p \le .01$, ** $p \le .001$

	Differenc	e in percer	nt at high					
		risk		Odds	Odds Ratio (EL/non-EL)			
Reading Performance Measure	Year 1	Year 2	Year 3	Year1	Year 2	Year 3		
Nonsense Word Fluency								
Kindergarten	9.5	12.7	7.8	1.67 _a *	2.09 _a *	2.39 _a *		
Oral Reading Fluency								
Grade 1	8.9	9.7	12.1	1.54 _a *	1.70 _a *	2.21 _a *		
Grade 2	14.1	9.1	7.6	1.77 _a *	1.48 _a *	1.46 _a *		
Grade 3	8.5	10.7	7.9	1.48 _a *	1.67 _a *	1.59 _a *		
SAT-10								
Kindergarten	12.3	14.8	14.2	2.02 _a *	2.45 _a *	2.79 _a *		
Grade 1	15.1	14.3	23.1	2.03 _a *	2.11 _a *	3.69 _b *		
Grade 2	17.6	17.4	17.9	2.19 _a *	2.35 _a *	2.62 _a *		
Oregon Statewide Assessment								
Grade 3	22.3	13.7	14.5	2.79 _a *	2.12 _a *	2.54 _a *		

Table 13. Difference in the Percentage of ELs and non-ELs at High Risk at the End of Each Implementation Year

Note. Odds ratios in the same row that do not share the same subscripts differ at p < .05 (i.e., the 95 percent confidence intervals do not overlap). * $p \le .001$

Reading First Impact for ELs and Non-ELs by Risk Category

Another way of presenting differences between ELs and non-ELs is by student risk category. For students in Oregon Reading First, students are identified in the fall as being (a) at low risk for reading difficulties, (b) at some risk, or (c) at high risk. Students at high risk are similar in that they have low skills on key early reading measures, whether they are ELs or non-ELs. In other words, both non-ELs and ELs, if they are at high risk in the fall, are similar in some ways in terms of their reading skills. The effectiveness of a particular approach, such as Reading First, could be based in part on the effectiveness of the program in helping students at high risk decrease their level of risk for long term reading problems over time. To the degree that a program is equally effective in helping ELs and non-ELs that are in the same category of risk could reflect a similar level of effectiveness for both groups. To the degree that non-ELs or ELs

benefited more or less than the other group would be evidence of differential effectiveness. In the next series of tables, we examine the impact of Reading First for non-ELs and ELs who began the fall in the same risk category. We make comparisons for high risk, some risk, and low risk groups.

Students at high risk. Table 14 presents the percentage of students who began the year at high risk and who decreased their level of reading risk by the end of the year. These are students for whom it could be said Reading First was successful in helping them make progress in reading proficiency. As would be expected, there is general improvement across implementation years in the percentage of high-risk students who decreased their level of reading risk from fall to spring. In general, the percentages are comparable for ELs and non-ELs. In almost all cases, the percentage of non-ELs who decreased their risk was higher than the percentage of ELs, but in the majority of cases the differences were small.

Evidence for whether changes across years reflect greater reductions in high-risk designations is reflected in the odds ratios in the right part of the table. The magnitude of change was comparable for ELs and non-ELs, providing additional evidence of similar impact for ELs who began the year at high risk.

Students at Some Risk. In Table 15, we show the percentage of students who began the year at some risk and who decreased their level of reading risk by the end of the year. The percentages of ELs and non-ELs who made reading progress are very similar across grades with the exception of third grade, where it appears that ELs had a higher odd of reducing their level of risk in Year 3 than non-ELs in the same risk category.

Students at Low Risk. Table 16 shows that more than 80 percent of students who began the year on track for successful reading remained on track at the end of the year whether they were ELs or non-ELs. Thus, these students made enough reading progress over the year to maintain their chances of being at low risk for long term reading difficulties. In kindergarten, the odds of students staying on track was substantially higher in year 3 for Non-ELs than for ELs indicating that experience in Reading First had a substantial influence on keeping kindergarten non-ELs on track. The odds of ELs who were on track in Year 1 versus Year 3 did not increase. This can be potentially explained by the fact that kindergarten ELs need time to develop their language proficiency to be able to understand and perform successfully the assessment tasks, independently of the implementation of the school-wide model.

The most important aspect of Table 16 is the high percentage of students who remained on track if they started the year on track. In particular, it is useful to consider these percentages in contrast to the smaller percentages of students who began the year at high risk or some risk, and were able to decrease their level of risk over the course of the year. Herein lies one of the keys to reading reform and early intervention. Once students are on track for successful reading outcomes, it appears to be much easier to keep them on track than it is to get them on track in the first place. This seems to be equally true whether students are ELs or non-ELs. However, as we have seen, far fewer ELs began any school year in K-3 on track for successful reading. The vast majority began the school year at some risk or at high risk for reading difficulties.

	Implementation Year							Odds Ratios						
	1 (2003 - 04)		1 (2003 - 04) 2 (2004 - 05)		3 (200	3 (2005 - 06)		AY2 ^c v. AY1		AY3 v. AY2		7. AY1		
	Non-			Non-		Non-		Non-		Non-		Non-		
	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL		
Kindergarten (NWF)	60.0	61.8	64.5	68.4	82.2	88.0	1.21	1.34	2.54***	3.39***	3.07***	4.54***		
Grade 1 (ORF)	45.8	47.8	36.6	43.4	43.9	53.3	0.68*	0.84	1.35	1.49*	0.92	1.25		
Grade 2 (ORF)	18.5	20.9	20.6	23.3	26.4	27.3	1.14	1.15	1.38	1.23	1.58*	1.42*		
Grade 3 (ORF)	36.3	35.8	33.3	35.2	41.8	45.2	0.88	0.98	1.44*	1.52**	1.26	1.48**		

Table 14. Percent of Students with an Intensive Instructional Recommendation^a who Decreased their Level of Reading Risk from the Beginning of the Year to the end of the Year^b

Note. ^aIntensive Instructional Recommendation is determined by performance on DIBELS measures and is defined by Good et al. (2002). ^bStudents with an Intensive Instructional Recommendation are said to have reduced their level of risk if their performance on the primary DIBELS measure at the end of the year is in either the "some risk" or "low risk" range. ^cY1 represents the first year of implementation; Y2 the second year; and Y3 the third year. * $p \le .05$, ** $p \le .01$, *** $p \le .001$

	Implementation Year							Odds Ratios								
	1 (2003 - 04)		1 (2003 - 04) 2 (2004 - 05)		3 (2005 - 06)		AY2 ^c v. AY1		AY3 v. AY2		AY3 v	v. AY1				
	Non-		Non-		Non-			Non-		Non-		Non-		Non-		Non-
	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL				
Kindergarten	56.5	59.9	54.4	62.8	76.7	79.2	0.92	1.13	2.76**	2.25**	2.53**	2.55**				
Grade 1	44.2	46.4	44.0	38.5	41.9	51.8	0.99	0.73*	0.92	1.71***	0.91	1.24				
Grade 2	50.0	44.1	37.7	43.4	48.2	48.5	0.61	0.97	1.53	1.23	0.93	1.19				
Grade 3	28.2	32.5	39.1	40.6	50.5	47.1	1.63	1.42*	1.59*	1.30	2.60**	1.85**				

Table 15. Percent of Students With a Strategic Instructional Recommendation^a who Decreased Their Level of Reading Risk From the Beginning of the Year to the End of the Year^b

Note. ^aStrategic Instructional Recommendation is determined by performance on DIBELS measures and is defined by Good et al. (2002). ^bStudents with a Strategic Instructional Recommendation are said to have reduced their level of risk if their performance on the primary DIBELS measure at the end of the year is in the "low risk" range. ^cY1 represents the first year of implementation; Y2 the second year; and Y3 the third year. * $p \le .05$, ** $p \le .001$

	Implementation Year							Odds Ratios						
	1 (2003 - 04)		2 (2004 - 05)		3 (2005 - 06)		AY2 ^b v. AY1		AY3 v. AY2		AY3	v. AY1		
		Non-		Non-		Non-		Non-		Non-		Non-		
	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL		
Kindergarten	93.1	83.2	89.2	86.8	83.9	95.5	0.61	1.33	0.63	3.20***	0.39	4.25***		
Grade 1	88.8	86.9	80.3	81.5	79.9	88.3	0.51	0.66*	0.98	1.71***	0.50	1.13		
Grade 2	88.5	93.4	90.9	93.0	93.4	96.5	1.30	0.94	1.42	2.10*	1.84	1.97*		
Grade 3	86.7	89.8	84.3	90.4	92.3	94.6	0.82	1.07	2.22*	1.85*	1.82	1.99**		

 Table 16. Percent of Students With a Benchmark Instructional Recommendation who Maintained Benchmark Status

 From the Beginning to the End of the Year

Note. ^aBenchmark Instructional Recommendation is determined by performance on DIBELS measures and is defined by Good et al. (2002). ^bY1 represents the first year of implementation; Y2 the second year; and Y3 the third year. $*p \le .05$, $**p \le .01$, $***p \le .001$

Conclusions

Although the research base on academic achievement for ELs is relatively small compared to the extensive research base for English only students, we believe there is enough research to provide guidance and solutions to increase academic performance for ELs. Five major implications and recommendations can be derived from the findings of our analyses of the impact of the implementation of Oregon Reading First:

- 1. Generally, schools with experience implementing Oregon Reading First are able to support the English reading development of ELs more effectively than inexperienced schools. The experience may help schools better understand the reading level of their students and how to provide them with the support they need to improve their reading skills. Experience seems to help provide better support in terms of stronger leadership, providing staff with school-wide professional development on how to interpret data from formative assessments to guide instruction.
- 2. As with other school-wide reforms, Reading First takes time to be implemented effectively. For example, in the first year of Oregon Reading First the focus of professional development was on the overall implementation of the School-wide Beginning Reading Model. Professional development activities typically included the entire school team (i.e., administrators, principal, coaches, and teachers)³³. After three years of participation, the focus of professional development for Oregon Reading First schools shifted heavily to helping coaches provide school-based professional development, support, and direction (e.g., conduct more focused classroom observations, provide teachers with highly specific training on the delivery of instruction and the implementation of different research-based programs, and increasing support to implement behavior management routines in the classrooms).
- 3. Providing professional development to teachers and instructional assistants on effective instructional strategies for diverse learners is key to increasing ELs academic achievement. Professional development trainings should include: (a) information to develop a deeper understanding of the core components of beginning reading (i.e., phonological awareness, phonics, fluency, vocabulary, and comprehension strategies; (b) strategies on how to provide explicit instruction by using visual models, verbal directions, full and clear explanations, and outlined steps; (c) practice on how to provide temporary scaffolding, or instructional supports for ELs (these scaffolding should be faded over time as students assume more control of their learning); (d) a careful sequencing of instruction that makes connections between new material and previously taught material overt; (e) eliciting general knowledge from students to help them understand and acquire new knowledge; (f) reviewing materials sequentially, and cumulatively with sufficient variety so that students do not memorize answers³⁴.
- 4. Based on multiple years worth of data from Oregon Reading First, we know that ELs tend to start kindergarten at risk for reading problems. Thus, it is important that all

³³ See Baker et al. (2007), pp 21-22.

³⁴ Coyne, Kame'enui & Carnine (2007)

schools have a strong kindergarten program that focuses on the development of phonemic awareness and phonics in addition to vocabulary and language development. As the data indicate, it is not necessary to wait until students have developed their English language skills to start teaching them reading skills. Several research studies also support this conclusion³⁵.

5. Frequent progress monitoring can help guide the support students need to develop their reading skills. A premise of Oregon Reading First is that students should reach benchmark goals at specific points in time across grades. It is likely that Cohort A schools after three years of implementing Oregon Reading First were following students closely and responding to data more promptly by: (a) regrouping students frequently according to their progress monitoring data, (b) increasing the amount of instruction for intensive students, (c) reducing the size of small group instruction for intensive students to provide more opportunities to practice newly learned skills, (d) ensuring that experienced teachers rather than inexperienced teachers deliver the instruction to the most intensive students.

Finally, reading performance for ELs should be examined in the context of the Schoolwide Model. As we saw in the analyses related to changes in the reading gap between ELs and non-ELs, it is not easy to seriously close the reading gap when reading programs are effective for both ELs and non-ELs. However, it is possible to provide instruction so that a higher percentage of ELs are reading at grade level. There is considerable evidence in this report that ELs benefit from the implementation of a School-wide Beginning Reading Model in which there is a strong commitment to increasing the level of reading achievement of ALL students in the classroom, across all classrooms in the school, across all schools within the district, and across all districts in the state.

³⁵ Chiappe, Siegel, & Wade-Woolley (2002); Geva & Yaghoub Zadeh (2006); Lesaux & Siegel (2003).

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