LEXIA READING CORE5 PROGRESS REPORT
KANSAS READING INITIATIVE 2014–2015: JULY PROGRESS REPORT (UPDATED)

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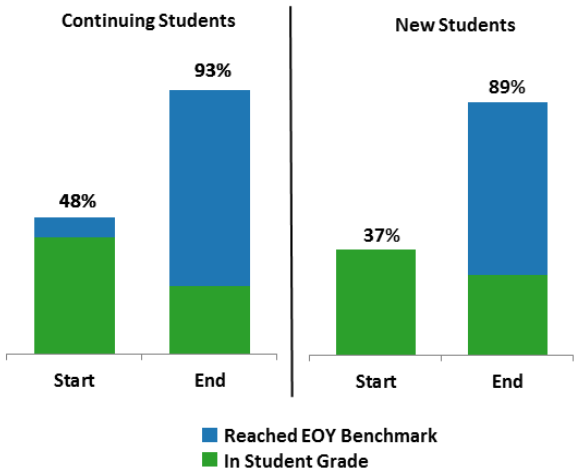
Summary

This progress report for the Kansas Reading Initiative (KRI) focuses on outcomes from Fall 2014 through the end of May 2015. In this report, students who began using Lexia Reading Core5® (Core5) in the 2013–14 school year and continued use during the 2014–15 school year are "Continuing Students," while students who first began using Core5 during the 2014–15 school year are "New Students."

- Over 37,000 students were actively using Core5 in Kansas during the 2014–15 school year. This report focuses on 27,108 students (10,953 Continuing Students and 16,155 New Students) who met Core5 usage requirements (i.e., met their prescribed usage minutes for at least 16 weeks).

- The use of Core5 has resulted in statistically significant gains in student achievement.
  - The percentage of Continuing Students working in their grade level of material or reached end-of-year (EOY) benchmark in Core5 increased from 48% at the start of the year to 93% at the end of the year.
  - The percentage of New Students working in their grade level of material or reached EOY benchmark in Core5 increased from 37% at the start of the year to 89% at the end of the year.

Figure 1. Student Progress in Core5



- The percentage of students working on material two or more grade levels below their enrolled grade level in Core5 dropped for both groups.
  - The percentage of Continuing Students decreased from 13% to 2%.
  - The percentage of New Students decreased from 26% to 3%.

- On the whole, Core5 is being implemented as required in the KRI schools.
  - Across the state, 73% of students met usage requirements for the 2014–15 school year.
  - The majority of teachers have been meeting monitoring requirements by logging into the myLexia student data system on a regular basis (at least two times per month).

- When compared to students at Kansas schools which did not use Core5, students in KRI schools made greater gains on DIBELS Next from beginning-of-year to end-of-year assessments. KRI schools averaged a 15 percentage point increase in the percentage of students categorized as At/Above Benchmark. In contrast, Non-KRI schools showed a smaller change (5 percentage point increase).

KANSAS READING INITIATIVE 2014–2015: JULY PROGRESS REPORT (UPDATED)

Lexia Reading Core5

Lexia Reading Core5® (Core5) is a technology-based reading program that provides students of all abilities the explicit instruction needed to accelerate mastery of reading skills while delivering performance data and analysis without interrupting the flow of instruction to administer a test. Built to rigorous reading standards, this scalable, research- and technology-based system accelerates reading skills development, predicts students' year-end performance and provides teachers data-driven action plans to help differentiate instruction.

In Core5, students work independently and at their own pace on activities using the program on a desktop computer, web browser, or tablet. If a student struggles with a task, he or she receives skill-specific, explicit instruction in the online program. If the student continues to struggle, the program notifies the teacher and provides targeted, structured lesson materials for teacher-led instruction. Core5 enables at-risk students to close the gap more quickly, and helps on-level or advanced students to continue to progress at a pace that is appropriate to their needs or level. The program provides real-time assessment data that teachers can use for planning small group instruction, and enables teachers, principals and district-level administrators to monitor academic progress at the district, school, grade, classroom and student levels. Core5's Auto Placement tool determines an appropriate starting level in the program consistent with each student's performance which might not match his/her age or enrolled grade (e.g., a 2nd grader could place in Core5 Level 2 [kindergarten skills] which is two grade levels below second grade).

Kansas Reading Initiative

The Kansas Reading Initiative (KRI) is a two-year pilot program designed to improve reading outcomes in the state of Kansas using educational technology, specifically Core5. KRI is managed by the Kansas Children's Cabinet and Trust Fund (CCTF) and includes a budget of up to $6M in both 2013–14 and 2014–15. These funds are being used to implement the program in participating schools. By the end of May 2015, over 37,000 students in Kansas in grades PreK–5 actively used Core5. There is no cost to the schools that choose to participate in the pilot program as long as they meet standards for fidelity of implementation (i.e., 60% of students meeting at least 16 weeks of recommended usage in the first year and 75% of students in the second year of KRI). Educational Design Solutions, a Kansas-based company, is supporting this implementation statewide (www.educationaldesignsolutions.com).

Progress Reports

Lexia has provided the Kansas Children's Cabinet and Trust Fund (CCTF) with three progress reports during the 2014–15 school year. The first report, delivered in October, included data on school and student enrollment, Auto Placement tool results (an adaptive set of items that determines an appropriate starting level in the program for each student), and Performance Predictors (students' percent chance of reaching end-of-year, grade-level benchmarks). The mid-year report, delivered in February 2015, included data on student progress in Core5 (e.g., changes in students' grade level of material in Core5 and changes in Performance Predictors) as well as an evaluation of teacher/staff

engagement. This end-of-year report, delivered in July 2015 and updated for October 2015, includes data on student progress in Core5, student demographics, results by grade and geographic location, teacher/staff engagement, and an assessment of school usage. This report provides aggregate outcomes across schools statewide, school-specific data on meeting usage requirements and data on student progress as stipulated in the legislative proviso (herein referred to as Performance Measures). Included in the Performance Measures is a comparison of DIBELS Next performance for KRI and Non-KRI schools.

I. Student Progress in Core5

Sample Selection

In accordance with KRI legislative stipulations, progress in Core5 is measured for students who began using the program by December 31, 2014, and subsequently met a weekly usage criterion over the 2014–15 school year. Overall, there were 37,268 students who began using Core5 by December 31, 2014. Of these students, 14,633 began using Core5 in the 2013–14 school year and continued use in the 2014–15 school year. These students are referred to as "Continuing Students." The remaining 22,635 students began using Core5 in the 2014–15 school year and are referred to as "New Students."

Based on real-time performance data, Core5 provides students with a monthly "Performance Predictor" and a corresponding "Prescription of Intensity". Performance Predictors (students' percent chance of reaching end-of-year, grade-level benchmark) are divided into three risk categories: On Target, Some Risk, and High Risk. A Prescription of Intensity is provided, specifying the number of minutes per week the student should use the online program. Ranging from 20 to 80 minutes per week, the Prescription of Intensity is designed to increase the student's chance of reaching end-of-year (EOY) benchmark for his/her grade level. Students are considered "meeting usage" if they met the prescribed number of minutes for a given week. Once students reach benchmark, they stop receiving usage targets and any weekly program use is considered "meeting usage" for that week.

In accordance with KRI criteria, the examination of student progress is restricted to students who "met usage" for at least 16 weeks over the 2014–15 school year. Of the 37,268 students who started using Core5 by December 31, 2014, 27,108 (73%) met usage for at least 16 weeks and are included in the following analyses. Table 1 presents this information for each student type. Once a student reaches EOY benchmark, their use is no longer applicable to be evaluated. A portion of the students in this analysis (2,097) reached EOY benchmark in Core5 before they had the opportunity to reach 16 weeks of usage; therefore, all of these students are included in the analysis.

Table 1. Sample Selection by Student Type

	Started by December 31, 2014	Met Usage	% of Eligible Students that Met Usage
Continuing Students	14,633	10,953	75%
New Students	22,635	16,155	71%

Student Demographics

Demographic information was made available for approximately 38% of students in the end-of-year progress analysis. Table 2 presents this information by grade.

Table 2. Demographic Information for Students in the End-of-Year Progress Analysis

Grade	ELL Status (N=4,895)		Gender (N=10,310)		Ethnicity (N=10,442)				
	ELL	Non-ELL	Male	Female	White	Hispanic	Black or African American	Asian or Pacific Islander	Other
K	13%	88%	47%	53%	93%	< 1%	2%	1%	3%
1	21%	79%	50%	50%	71%	11%	9%	4%	5%
2	23%	77%	47%	53%	74%	9%	8%	3%	5%
3	25%	75%	49%	51%	69%	12%	9%	3%	7%
4	28%	72%	50%	50%	72%	10%	8%	3%	6%
5	28%	72%	49%	51%	71%	13%	9%	2%	6%
Total	**24%**	**76%**	**49%**	**51%**	**74%**	**9%**	**8%**	**3%**	**6%**

Note: Totals may not equal 100% due to rounding.

Changes in Grade Level of Material

Table 3 shows the grade level of material (GLM) in Core5 on which these 27,108 students were working at two different time points:

- Start-of-Year Level (based on the Auto Placement tool for New Students and on initial level in Fall 2014 for Continuing Students) and
- End-of-Year Level (student's level in Core5 on June 1, 2015).

Table 3. Changes in GLM Status in Core5 from Start-of-Year to End-of-Year

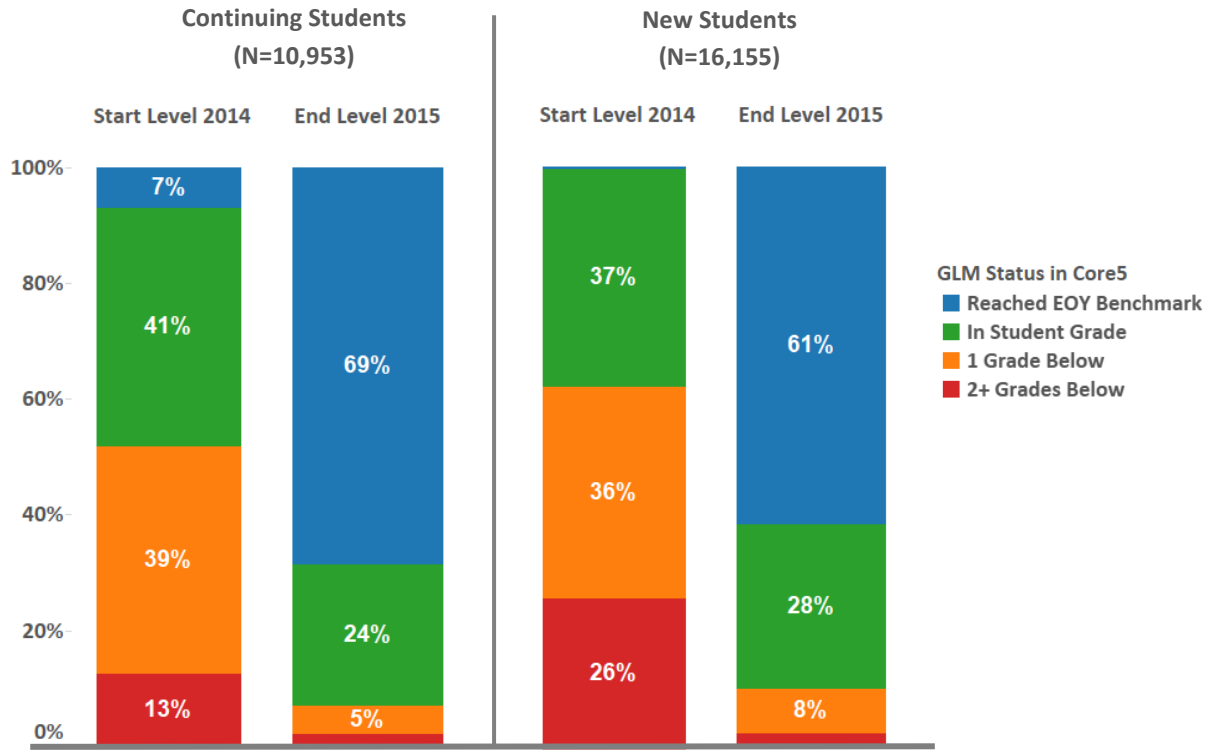
Note: Totals may not equal 100% due to rounding.		2 or More Grades Below	1 Grade Below	In Student Grade	Reached EOY Benchmark
Continuing Students (10,953)	**Start Level**	13%	39%	41%	7%
	End Level	2%	5%	24%	69%
New Students (16,155)	**Start Level**	26%	36%	37%	<1%
	End Level	3%	8%	28%	61%

Note: Totals may not equal 100% due to rounding.

Both Continuing Students and New Students showed significant progress in Core5 from Start-of-Year to End-of-Year. The percentage of students working on skills above grade level (i.e., reached EOY benchmark) or working on skills in their grade level in Core5 increased from Start-of-Year to End-of-Year for both groups of students. The percentage for Continuing Students increased from 48% to 93% and the percentage for New Students increased from 37% to 89% (see Table 3 and Figure 1). Both of these changes are statistically significant. [1]

The KRI End-of-Year Performance Measures specify that at least 80% of students eligible for the progress analyses will end the school year working on skills in or above grade level (or advanced at least two grade levels of material) in Core5. These outcomes exceed the targeted goal of 80% specified in the KRI End-of-Year Performance Measures.

Figure 2. Changes in GLM Status in Core5 by Time of Year (N=27,108)



Note: Totals may not equal 100% due to rounding.

Changes in Grade Level of Material in Core5: End-of-Year Benchmark Status

The KRI End-of-Year Performance Measures specify that 60% of students – who started the school year working on skills one year below grade level or in/above grade level in Core5 – will reach EOY benchmark in Core5. Reaching EOY benchmark means completing Core5 levels up to and including the student's current grade level. For Continuing Students and New Students combined, there were 21,552

[1] Continuing Students: χ^2 (1, N = 10,953) = 5,33 p < .001; New Students: χ^2 (1, N = 16,155) = 9,47 p < .001

students who started the 2014-2015 school year working on skills one grade below, in their grade or above grade level. Of these students, 16,196 (75%) reached EOY benchmark by the end of the year. This percentage exceeds the 60% target specified in the KRI End-of-Year Performance Measures.

Changes in Grade Level of Material in Core5: Grade Breakdown

Table 4 shows progress by student grade for Continuing Students and New Students combined. The table includes two rows per grade that compare the percentage of students working on each grade level of material (GLM) from Start-of-Year to End-of-Year. Results show uniformly strong performance across grades: 81% or more in each grade reached EOY benchmark or were working on material in their grade level in Core5 by the end of the school year.

Table 4. Changes in GLM Status in Core5 by Time of Year and Grade (N=27,108)

		2 or More Grades Below	1 Grade Below	In Student Grade	Reached EOY Benchmark
Pre-Kindergarten (234)	Start Level	–	–	90%	10%
	End Level	–	–	17%	83%
Kindergarten (4,285)	Start Level	–	55%	44%	1%
	End Level	–	0%	20%	80%
First Grade (5,147)	Start Level	9%	44%	46%	2%
	End Level	0%	2%	36%	62%
Second Grade (5,431)	Start Level	11%	48%	37%	4%
	End Level	0%	9%	32%	59%
Third Grade (5,064)	Start Level	42%	29%	24%	6%
	End Level	3%	12%	27%	58%
Fourth Grade (3,933)	Start Level	32%	20%	44%	5%
	End Level	5%	7%	22%	67%
Fifth Grade (3,014)	Start Level	38%	24%	38%	0%
	End Level	8%	11%	18%	63%
All Students (27,108)	Start Level	20%	37%	39%	3%
	End Level	2%	7%	27%	64%

Note: Totals may not equal 100% due to rounding.

Changes in Grade Level of Material in Core5 by Geographical Location

Table 5 shows progress in Core5 for students aggregated by geographical location — urban or rural. Geographic information was made available for 97% of students in the progress analysis. The table includes two rows per location type that compare the percentage of students working on each grade level of material (GLM) in Core5 from Start-of-Year to End-of-Year. Outcomes were positive for both urban and rural students: 87% and 94%, respectively, were working on material in their grade level or reached EOY benchmark in Core5 by the end of the school year.

Table 5. Outcomes by Geographic Location: GLM Status in Core5 (N=26,425)

		2 or More Grades Below	1 Grade Below	In Student Grade	Reached EOY Benchmark
Urban Students (12,396)	**Start Level**	**24%**	**37%**	**36%**	**3%**
	End Level	3%	9%	29%	58%
Rural Students (14,029)	**Start Level**	**18%**	**38%**	**42%**	**3%**
	End Level	1%	5%	25%	69%

Note: Totals may not equal 100% due to rounding.

II. Teacher/Staff Evaluation

This section presents data on how often teachers/staff of the students identified in the progress analysis logged into Core5's Assessment Without Testing® online tool, myLexia (www.myLexia.com). The myLexia site provides teachers with detailed student data so they can analyze student performance and match instruction to each student's needs. Of the 4,939 teachers/staff who used the online tool, 60% logged in at least 18 times from August 2014 through the end of May 2015. This percentage exceeds the KRI End-of-Year Performance Measure which states that the majority of teachers/staff will log in at least twice a month (i.e., 30 day period) over the school year.

Teacher Satisfaction

An online survey of teachers was conducted by Educational Design Solutions in January 2015. Over 1,000 teachers were invited to participate and 225 teachers responded to the survey. Overall, satisfaction with Core5 or the KRI program was very high:

- 92% felt their students benefit from using Core5.
- 86% agreed or strongly agreed that the KRI program makes individualization of instruction more effective.
- 67% believed KRI has helped them become a more effective educator.
- 86% would recommend KRI to their peers.

- 95% said if they could make a decision about whether to continue the program beyond the supported two years, they would continue KRI in some form for their students.
- Several teachers wrote in their support of Core5

  "It is hard to believe that any program could be so beneficial to elementary students but Lexia is. It has been easy and engaging to all children and has helped tremendously in their reading skills."

  "As a staff we don't know how we were able to effectively teach reading without this program!"

  "Each of my students who are using Lexia are totally engaged the entire class time. Instead of spacing off while another student is being helped, Lexia keeps all the kids working all the time."

III. Student Usage by Schools

KRI enrollment functions on a rolling basis allowing schools to begin implementing the Core5 program at any time during the school year. To be included in this usage assessment for the 2014–15 school year, schools must have started using the program by December 31, 2014. KRI schools agreed to standards for fidelity of implementation by having at least 60% of their students meet their individual usage recommendations in their first KRI school year and 75% in their second KRI school year. (During the 2014-15 school year, usage targets were evaluated on a weekly basis and schools needed to have at least 16 individual weeks where they met the 60% or 75% threshold). The Appendix details the usage assessment for the 284 schools that began use of Core5 by December 31, 2014. Schools are ordered alphabetically by their myLexia customer name and school name. The table includes the launch month (the month the school formally started Core5), the number of weeks that 60% of students met usage recommendations, and the number of weeks that 75% of students met usage recommendations.

IV. School Comparison Analyses

Sample Selection and Description

Data Collection

In the spring of 2015, 195 "KRI schools" submitted their end-of-year assessment data to Lexia's Education and Research team. These assessments included **aims**web®, DIBELS® Next, MAP®, STAR Reading™, and STAR Early Literacy™. For school comparison analyses, the team was able to obtain assessment data from 11 Non-KRI schools. Ten schools provided DIBELS Next data and one school provided **aims**web data. The **aims**web comparison school did not provide appropriate beginning-of-year and end-of-year subtest scores for grades 1 and 5; thus, **aims**web could not be used for the analysis.

Matching KRI and Non-KRI Schools

Of the 10 KRI schools with DIBELS Next scores, only three had a sufficient population size (at least 180 students) and provided data for all grades (K-5). These three schools also met the KRI usage criterion of 60% of students meeting usage targets for at least 16 weeks. The analyses below only included KRI

students who used Core5 for the full school year (at least 24 weeks of use) and had both beginning-of-year and end-of-year scores on DIBELS Next.

For the schools to be appropriately matched to examine growth on DIBELS Next, the schools needed to show non-significant differences on DIBELS Next at the beginning of the year. There were four Non-KRI schools that showed non-significant differences on DIBELS Next compared to the three KRI eligible schools. Table 6 below presents demographic profiles for the KRI and Non-KRI schools in the analyzed samples.

Table 6. Demographic Profiles for Schools in Comparison Analysis

		School Level Demographics		
School	**Number of Students in Analyses**	**% White**	**% Free or Reduced Lunch**	**% Special Education**
KRI 1	161	43%	62%	12%
KRI 2	176	79%	30%	16%
KRI 3	201	94%	37%	19%
Non-KRI 1	406	52%	58%	13%
Non-KRI 2	467	48%	58%	10%
Non-KRI 3	279	51%	50%	15%
Non-KRI 4	322	58%	58%	14%

Status on DIBELS Next

Chi-square tests were used to examine differences in reading performance between KRI and Non-KRI schools. Each school provided grade-level composite scores based on DIBELS Next Former goals.[2] Composite scores were used to categorize students as At/Above Benchmark or Below/Well Below Benchmark.

Table 7 shows beginning-of-year and end-of-year Benchmark Status on DIBELS Next for the KRI and Non-KRI schools. As expected, pairwise comparisons showed that none of the KRI schools significantly differed from the Non-KRI schools in terms of beginning-of-year Benchmark Status.[3] In contrast, differences in end-of-year Benchmark Status favored the KRI schools. KRI School 1 had a significantly higher percentage of At/Above Benchmark students than each of the four Non-KRI schools. KRI Schools 2 and 3 had a significantly higher percentage of At/Above Benchmark students than three of the four Non-KRI schools.[4] Overall, 10 of the 12 pairwise school comparisons (83%) resulted in significant differences favoring the KRI schools.[4] These results meet one of the end-of-year Performance Measure goals based on school comparisons.[5]

[2] https://dibels.uoregon.edu/docs/DIBELSNextFormerBenchmarkGoals.pdf

[3] For the 12 non-significant differences in beginning-of-year Benchmark Status, $.01 < \chi^2(1) < 2.02$, $p > .15$ in all cases. Individual test results are available upon request.

[4] For the 10 significant differences in end-of-year Benchmark Status, $3.84 < \chi^2(1) < 19.59$, $p < .05$ in all cases. Individual test results are available upon request.

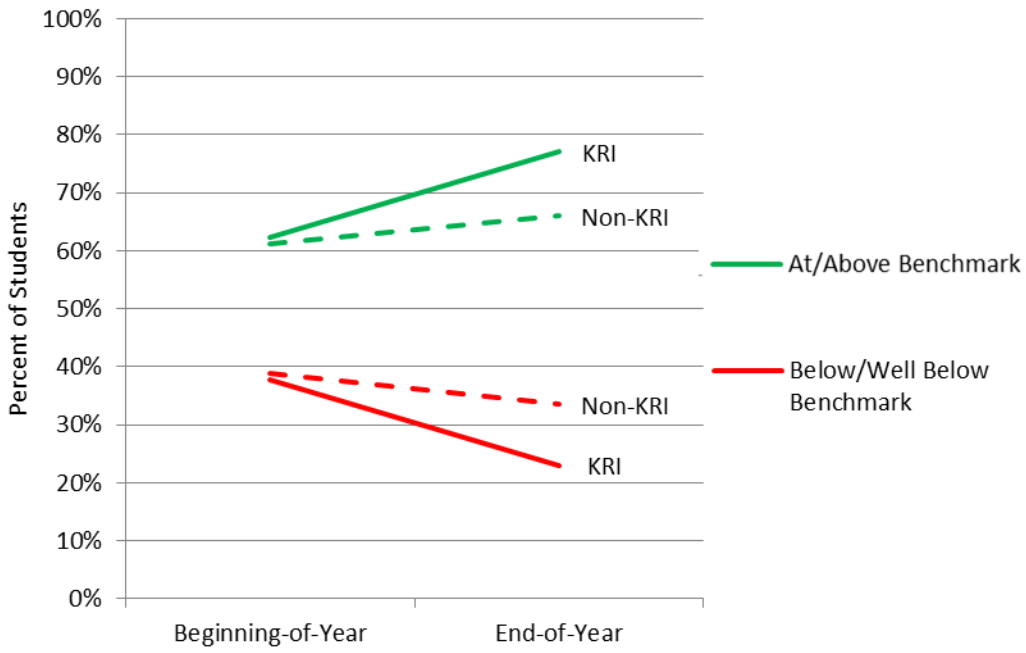
[5] Given that the Kansas State Reading Test is no longer administered, school comparisons based on state test scores are not possible.

Table 7. Benchmark Status on DIBELS Next for Schools in Comparison Analysis

	Beginning-of-Year		*End-of-Year*	
School	**% Below/Well Below**	**% At/Above**	**% Below/Well Below**	**% At/Above**
KRI 1	35%	65%	19%	81%
KRI 2	39%	61%	25%	75%
KRI 3	39%	61%	25%	75%
Non-KRI 1	42%	58%	38%	62%
Non-KRI 2	39%	61%	34%	66%
Non-KRI 3	37%	63%	34%	66%
Non-KRI 4	37%	63%	28%	72%

Figure 3 presents changes in Benchmark Status on DIBELS Next for KRI and Non-KRI schools. Data in the graph below are aggregated across the three KRI and four Non-KRI schools. KRI schools averaged a 15 percentage point increase in the percentage of students categorized as At/Above Benchmark. In contrast, Non-KRI school showed a smaller change (5 percentage point increase). Consequently, the percentage of students categorized as Below/Well Below decreased to a greater extent for KRI schools than Non-KRI schools.

Figure 3. Percentage of Students by Benchmark Status on DIBELS Next



V. Conclusion

The end-of-year data from the 2014–15 school year provide a two-year comprehensive assessment of the implementation of the Kansas Reading Initiative. The KRI program was launched in August of 2013 and demonstrated significant growth in the first year in relation to school participation (over 230 total schools), student participation and student reading gains (e.g., the percentage of students working in or above grade level in Core5 more than doubled, from 45% at placement to 94% at the end of the year).

This report, which includes results for students who have used Core5 over a two-year period, as well as students who began using Core5 in the 2014–15 school year, further documents the substantial reading gains made by students using Core5. Regardless of when the students began using Core5 (last year or this year), 91% ended the school year working in grade level or having reached EOY benchmark in Core5. Of those students, close to two-thirds (64%), successfully completed their grade level of material in Core5, reaching EOY benchmark. Further analyses showed similar positive outcomes across student grades (PreK – 5) and for both rural and urban schools.

This year's report includes an analysis in which three KRI schools were compared to four Non-KRI schools using DIBELS Next to evaluate changes in students' reading ability. When compared to Non-KRI schools, students in KRI schools made greater gains on DIBELS Next from beginning-of-year to end-of-year assessments. KRI schools averaged a 15 percentage point increase in the percentage of students categorized as At/Above Benchmark. In contrast, Non-KRI school showed a smaller change (5 percentage point increase). These results indicate that use of Core5 resulted in school-wide advantages in growth in reading performance as determined by performance on an outside assessment measure.

As reported to the Cabinet at the end of the first year, the program focus for the second year was to emphasize strong implementations that increased both student use of Core5 and the number of students with access to Core5 across the state of Kansas. Shifting from tracking use on a monthly basis to a weekly basis provided immediate feedback, which led to strong implementations across the state. This new tracking system better accounts for holidays, seasonal breaks and school-wide testing weeks that vary across districts. The data demonstrate that students who met their prescribed use patterns made reading gains, often closing one- and two-year gaps in skills in Core5. Building on that success will result in a reduction of at-risk students on a scale measured in the tens of thousands across the state.