GREAT PLAINS INSTITUTE
OF READING AND WRITING

COLLEGE OF EDUCATION AND HUMAN
SCIENCES

UNIVERSITY OF NEBRASKA LINCOLN

IMPACT OF NEBRASKA READING FIRST ON

READING COMPREHENSION

ACROSS THREE YEARS OF IMPLEMENTATION

2005-2007

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OVERVIEW

The current report focuses on the impact of Reading First on reading comprehension across the first three years of implementation in Nebraska. Grade level performance is defined as performance at or above the 40th percentile using grade level standards. Within each grade level section reading comprehension achievement is shown for all students and then by cluster membership. As stated in the 2006-2007 annual report, clusters are used to group similar schools together and enable Reading First leadership and school administration to make valid comparisons. Given the significant differences between schools in size, proportion of minority, disadvantaged and special education students, it was clear that analyzing student achievement based on cluster membership would better allow educators to make meaningful comparisons to school facing similar challenges and thus make instructional adjustments that meet the unique needs of students in their schools. Cluster membership presented in this report is consistent with those reported in the annual report. Achievement gaps between English language learners (ELL), economically disadvantaged students (FRL), minority students, and student with disabilities (special education) and their peers are presented within each grade level section as results vary between grades and by category.

FIRST GRADE

Each spring a random sample of first grade students throughout Reading First schools in Nebraska are selected to take the Gray Oral Reading Test (GORT). The GORT is an individually administrated norm referenced test. Nebraska law does not allow group administered tests before second grade. Four students (and two alternates) were randomly selected to complete this assessment from each first grade classroom in Reading First schools. This sampling procedure increases the relative impact of smaller classrooms as compared to measures in second and third grade.

The GORT comprehension subtest was selected for administration due to its high level of reliability. Reliability estimates indicates "the extent to which individual differences in test scores are attributable to 'true' differences in the characteristics under consideration and the extent to which they are attributable to chance errors" (Anastasi & Urbina, 1997, p. 84). The reliability coefficients for the GORT comprehension subtest for the age range of this sample ranges between .95-.96. Reliability estimates above .90 are the most desirable as they indicate an assessment is highly reliable.

Figure 1 shows the growth in reading comprehension scores by the random sample of first grade students in Nebraska Reading First schools. The numbers represent the percentage of first graders in the sample who scored at or above grade level on the GORT comprehension subtest. In the spring of the first year of Reading First implementation only 27% of these students were performing at or above grade level on this measure. By the end of the third year of Reading First implementation the percentage of first grade students performing at or above grade level increased by 20%. Most of the increase, however, was accomplished between year one and two, indicating that need for further attention to comprehension.
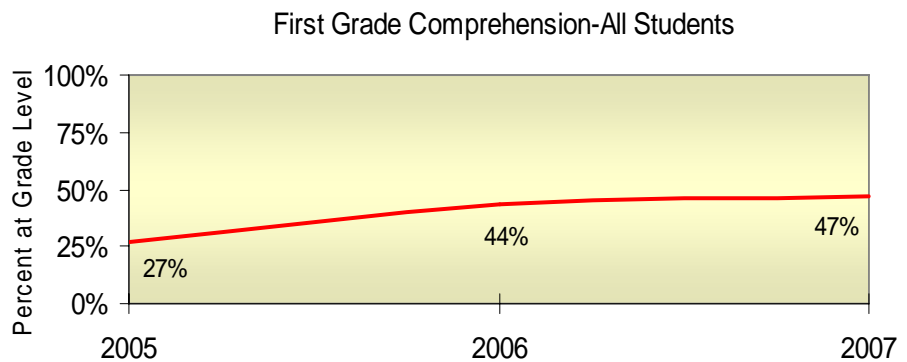

Figure 1: Percent of first grade students at grade level 2005-2007. Number of students tested: 325 (2005), 367 (2006), 385 (2007).

A comparison of first grade performance in reading comprehension by cluster membership is presented in figure 2. Cluster Two (low poverty, low minority, smaller schools) has shown the largest and most consistent growth since the first year of Reading First implementation (36%). This clearly indicates that teachers in this cluster are building on their instructional strengths in this area year after year. Cluster Three (larger schools, high poverty and ethnic minority student population) shows a fairly strong growth trajectory with a 21% increase in percentage of first grade students at or above grade level in comprehension. Given the very low starting point (18% of students at or above grade level) and the high mobility rate of students in this cluster this represents remarkable instructional improvements by first grade teachers in cluster three. Cluster One (high poverty, low minority) has shown the greatest difficulty in sustaining the growth in performance of first grade students on this measure after a gain of 12% in year two the numbers for this cluster actually declined and resulted in only a 4% increase over the three years. The results for this cluster explain in part the limited overall growth between years two and three.
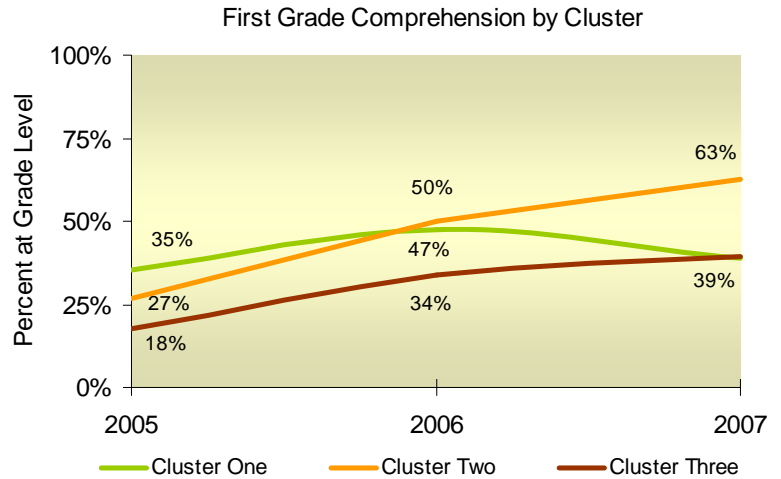

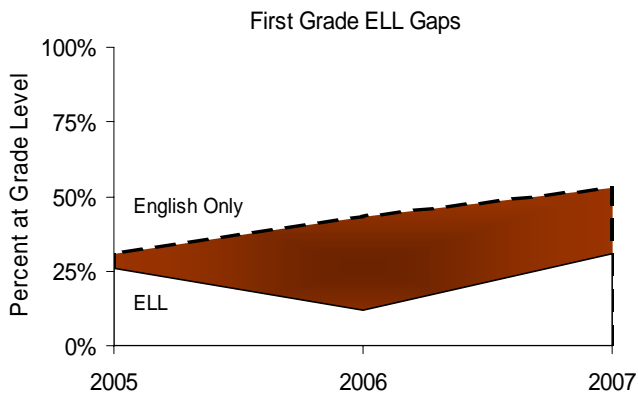Figure 2: First grade comprehension growth by cluster 2005-2007.

Figure 3: First grade ELL gaps 2005-2007.

Achievement gaps in reading comprehension across the first three years of Reading First implementation were analyzed between first grade students who are classified as English language learners, minorities, economically disadvantaged (FRL) and special education, and their peers (see figures 3-6). The achievement gaps in first grade must be interpreted with caution given the random sampling procedures related to administration of this measure. The achievement gaps, however, do seem consistent with growing discrepancies across categories. With the exception of the slight narrowing of the gap between white and minority students in the spring of 2007, the gaps are wider now than the first year of Reading First implementation.

The gaps for English language learners, shown in figure 3, reveals a drop in percent of students at grade level. This is a result of a uniquely successful ELL group of students that were first grade students in spring 2005. Thus the 2006-2007 trend is a better indicator of overall progress. This trend shows a small reduction in the gap between English learners and their English only peers. Figure 4 shows that very little progress in reading comprehension was achieved with students with disabilities. This result is indicative of a stronger focus on basic phonological awareness and decoding skills with these students. Most likely low decoding ability constrains their ability to be successful in this assessment.
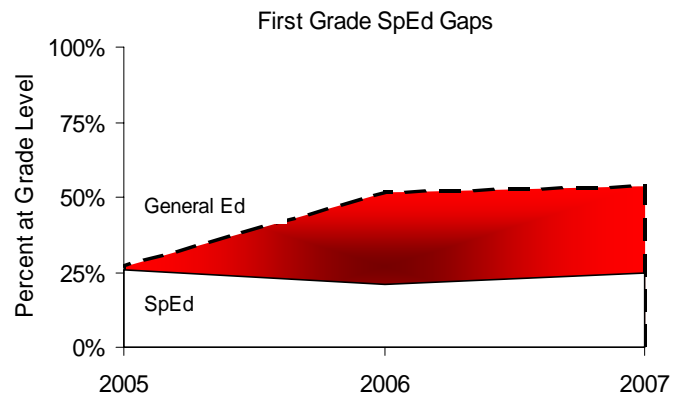

Figure 4: First grade SpEd gaps 2005-2007.

3

The gaps for ethnic minorities and economically disadvantaged students in figures 5 and 6 show that both groups improved but that mainstream students are currently benefitting more from Reading First instruction. First grade results clearly highlight the need to focus more on comprehension skills in first grade. The focus is even more crucial for populations at-risk as their growth is not as strong as that of mainstream students.
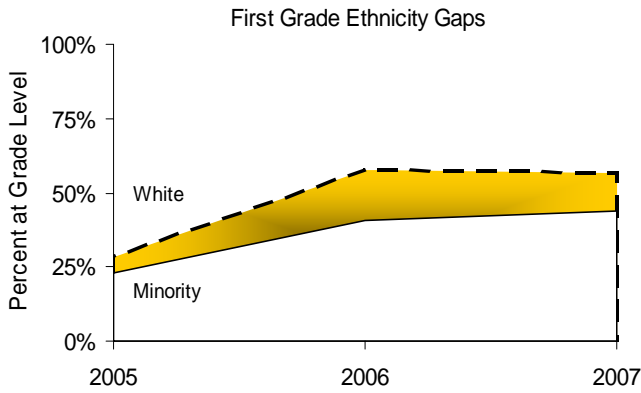
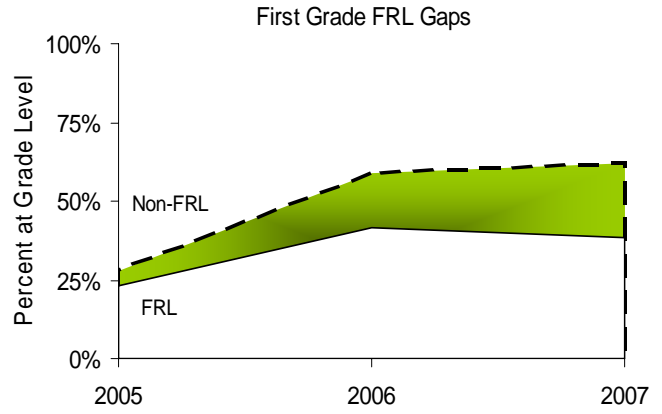Figure 5: First grade ethnic minority gaps 2005-2007.

Figure 6: First grade FRL gaps 2005-2007.

SECOND GRADE

Each spring all second and third grade students are administered the Gates-MacGinitie comprehension assessment. Reliability estimates for students in this age range are .91 for second grade and .93 for third grade. This is indicative of a highly reliable assessment for students at these grade levels.

Figure 7 shows the increase in the percentage of all second grade students in Nebraska Reading First schools performing at or above grade level in comprehension based on this assessment. Sixty-one percent of these students were at or above grade level during the spring of 2005. Growth between the first and second year of Reading First implementation was stagnant with only a 1% increase in the percent of students performing at or above grade level in reading comprehension. There was a sizable increase between years two and three with a 13% increase.
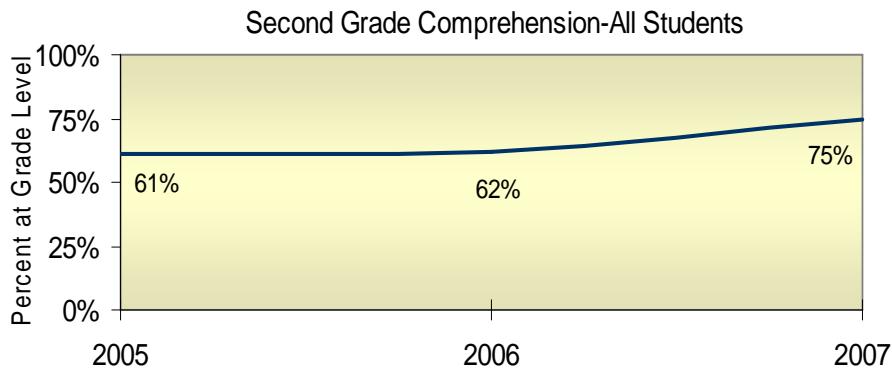
Figure 7: Percent of second grade students at grade level 2005-2007.
Number of students tested: 711 (2005), 823 (2006), 845 (2007).

A comparison of second grade performance in reading comprehension was also conducted by cluster membership (see figure 8). The growth trajectories between all three clusters were relatively consistent across all three years of implementation. There was very little change in reading comprehension performance across all three clusters between the first and second year of implementation. The most notable increase in percentage of students at or above grade level on this measure occurred between years two and three. Cluster Two had the largest percentage increase (16%) compared to Cluster One and Cluster Three, with 12% and 13% increases respectively. Cluster One and Cluster Two had only 15% or less of second grade students performing below grade level in reading comprehension in the spring of 2007.

Second Grade Comprehension by Cluster

Percent at Grade Level

	2005	2006	2007
Cluster One	73%	74%	85%
Cluster Two	68%	71%	84%
Cluster Three	43%	41%	56%

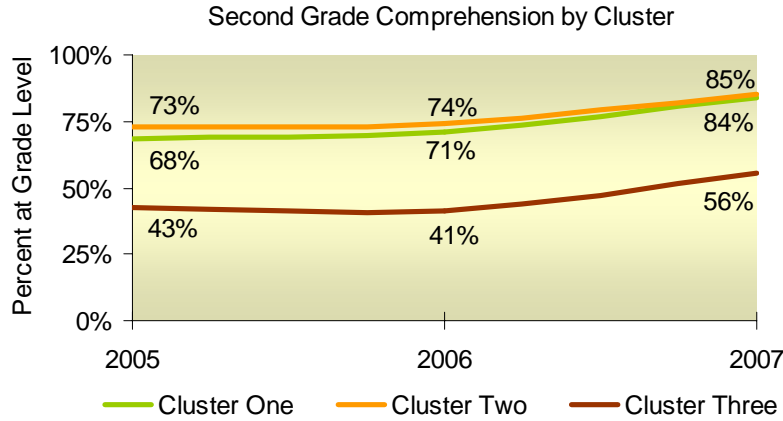— Cluster One   — Cluster Two   — Cluster Three

Figure 8: Second grade comprehension growth by cluster 2005-2007.

Achievement gaps in reading comprehension across the first three years of Reading First implementation were analyzed between second grade students who are classified as English language learners, minorities, economically disadvantaged (FRL) and special education, and their peers. The achievement gap between ELL and English only students narrowed slightly during the second year of implementation, but was more widened in the spring of 2007 (see figure 9). As a result, the achievement gap between these two groups of students has only decreased by 14% since 2005. The gap in reading comprehension between special education students and their general education peers has increased since the first year of Reading First implementation (see figure 10). The initial gap between these two groups was 18% which has risen to nearly 30% in the last school year.
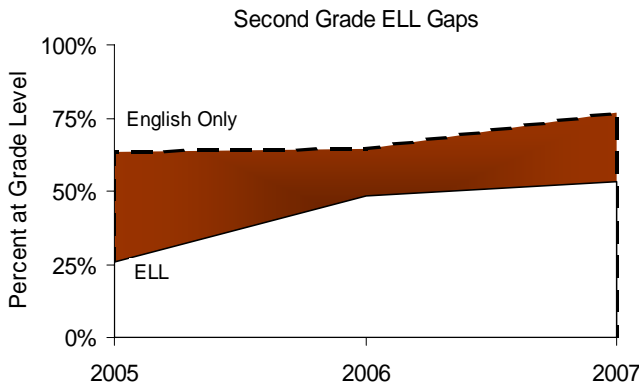
Second Grade ELL Gaps

Percent at Grade Level

English Only

ELL

Figure 9: Second grade ELL gaps 2007-2008.

Second Grade SpEd Gaps

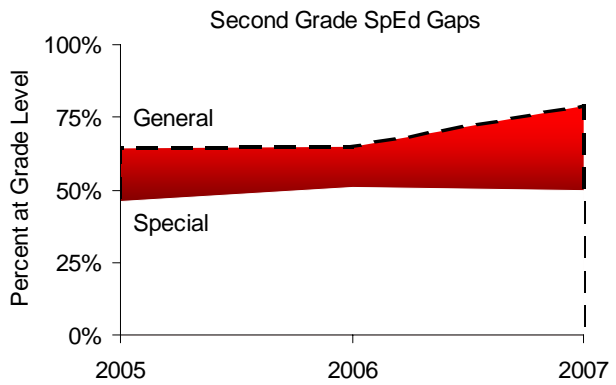*Percent at Grade Level*

General

Special

Figure 10: Second grade SpEd gaps 2007-2008.

The gaps between white and minority students remained unchanged between the first and second years of Reading First implementation but narrowed by approximately 12% between years two and three (figure 11). The gap in reading comprehension between economically disadvantaged (FRL) students and their peers has actually increased by 5% since the first year of implementation (see figure 12).
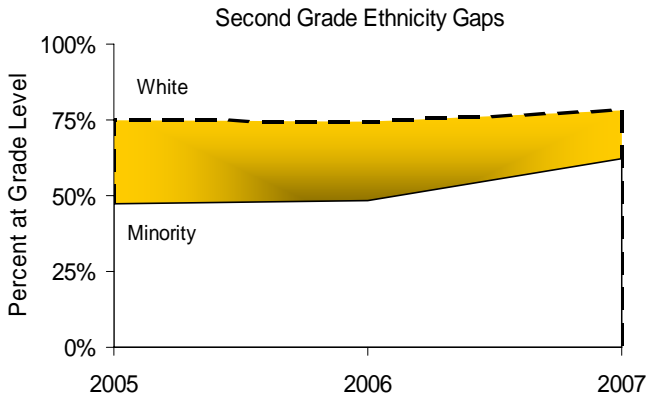
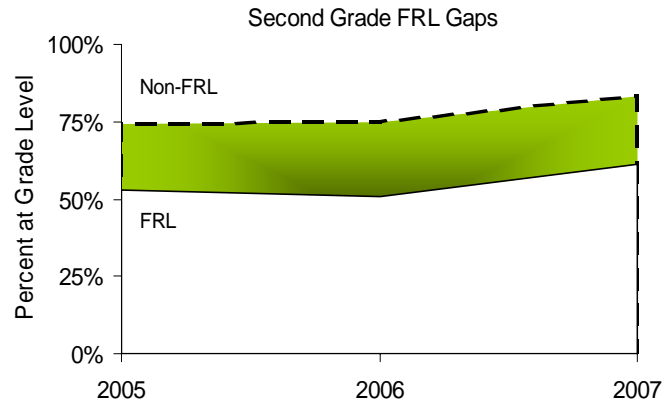Figure 11: Second grade ethnic minority gaps 2007-2008.

Figure 12: Second grade FRL gaps 2007-2008.

THIRD GRADE

Each spring all third grade students are administered the Gates-MacGinitie comprehension assessment. Figure 13 shows the increase in percentage of third grade students performing at or above grade level on this measure across the first three years of Reading First implementation. As shown, the growth in reading comprehension for this grade level has not improved tremendously since the inception of Reading First. There was a 7% increase in the number of third grade students performing at or above grade level between the first and second year of implementation and only a 5% increase between years two and three. Although there has been a 12% increase in the number of third grade students performing at or above grade level in reading achievement since the spring of 2005, it is clear that more attention to this area of instruction is necessary in order to bolster the reading comprehension skills of students at this grade level.
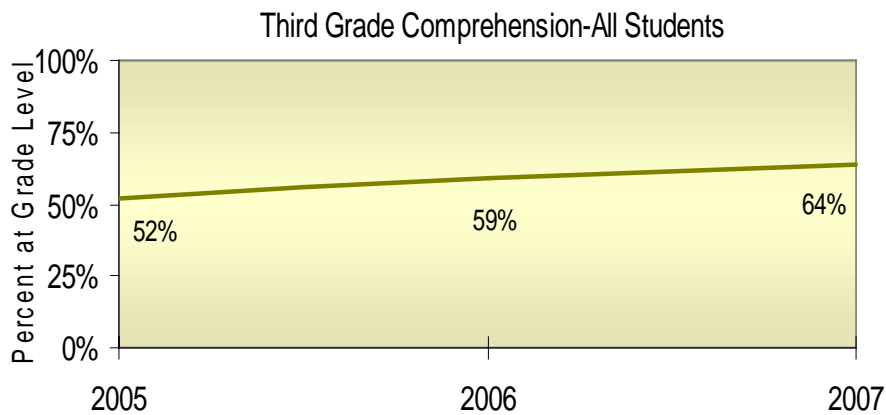
Figure 13: Percent of third grade students at grade level 2005-2007.
Number of students tested: 849 (2005), 789 (2006), 838 (2007).

6

A comparison of third grade performance in reading comprehension was also conducted by cluster membership (see figure 14). Third grade students in Cluster Two have shown the greatest increase (16%) in the percentage of students performing at or above grade level in reading comprehension. There was an 11% increase in Cluster One and a 10% in Cluster Three.

Although the difference between the clusters is significant, the growth trajectories between Cluster One and Cluster three are commensurate. The cluster analysis clearly shows the need for greater instructional focus on reading comprehension strategies in Cluster One and Cluster Three.

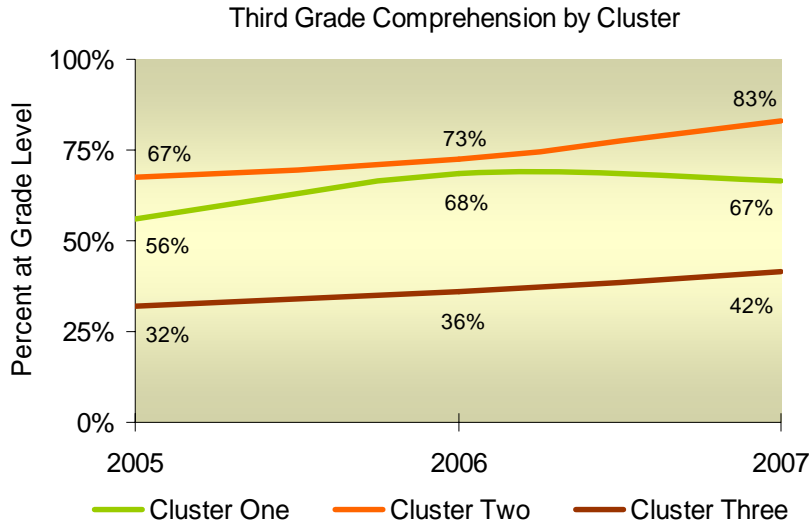**Third Grade Comprehension by Cluster**

Figure 14: Third grade comprehension by cluster 2005-2007.

Achievement gaps in reading comprehension across the first three years of Reading First implementation were analyzed between third grade students who are classified as English language learners, minorities, economically disadvantaged (FRL) and special education, and their peers (see figure 16). Analysis of achievement gaps in reading comprehension between ELL and English only students have narrowed by 17% since 2005. The gap between special education students and their general education peers has only decreased by 2 % since 2005 with a slight widening of the gap in 2006.
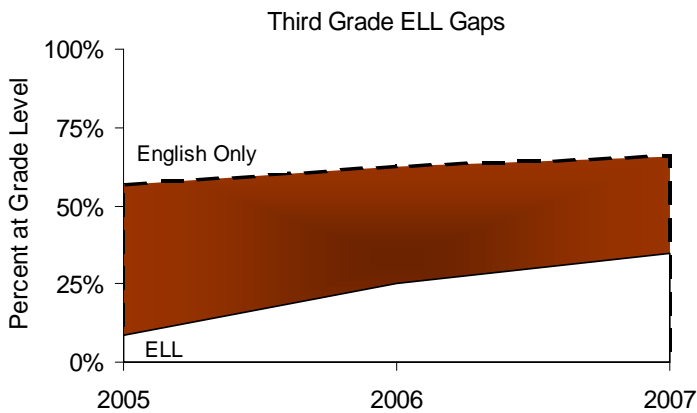
Third Grade ELL Gaps

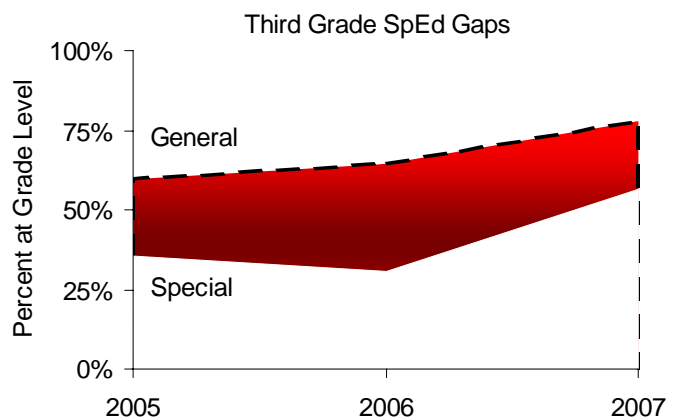Figure 15: Third grade ELL gaps 2005-2007.

Third Grade SpEd Gaps

Figure 16: Third grade SpEd gaps 2005-2007.

The gap between minority and economically disadvantaged (FRL) students and their peers have slightly widened since the inception of Reading First in Nebraska, 4% and 5% respectively.
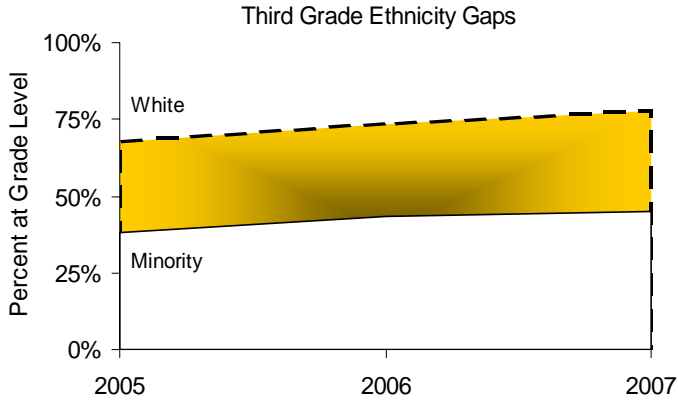
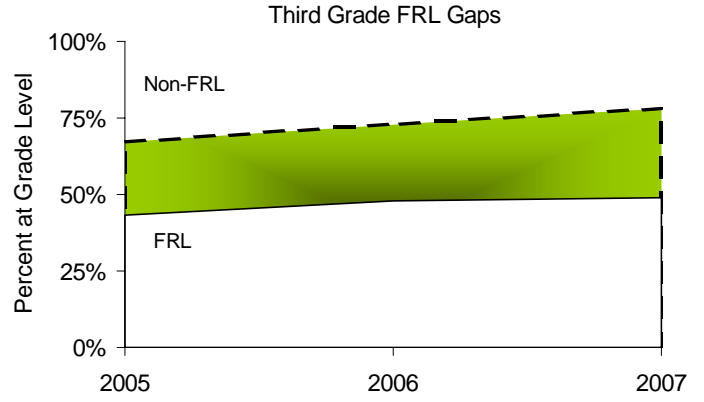Figure 17: Third grade ethnic minority gaps 2005-2007.

Figure 18: Third grade FRL gaps 2005-2007.

SUMMARY

Reading comprehension scores in first through third grades have increased fairly steadily since Reading First implementation began in 2005. Figure 19 shows the percentage of students performing at or above grade level at each grade level. It is important to reiterate that the measure and procedures used in first grade are different from those in second and third grades. Since first grade comprehension assessments involve random selection of a small number of students per grade level the standard error of this assessment may be higher than in second and third grades.

The percentage of students performing at or above grade level is the highest for second grade (75%) followed by third grade at 64 percent. Although first grade has the lowest percentage of students performing at or above grade level in comprehension, they have shown the highest percentage increase (20%) since the first year of Reading First implementation.
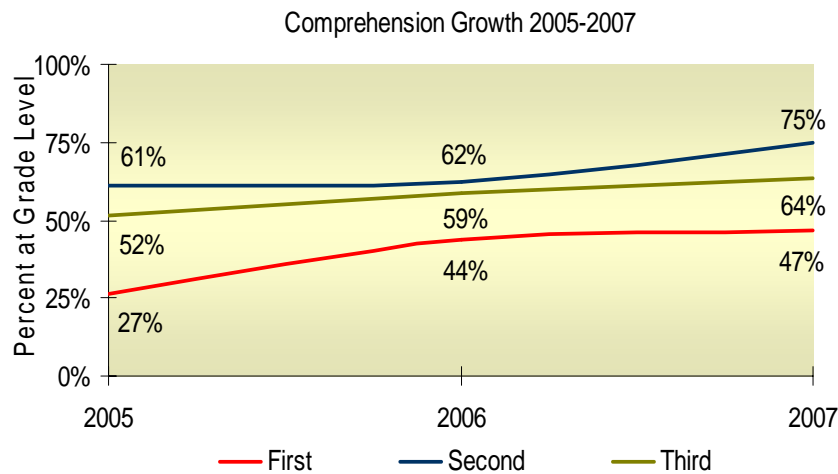
Figure 19: Comprehension growth in first, second, and third grades 2005-2007.

Figure 20 shows the within cohort comparison in comprehension growth by cluster. This figure represents the growth in student comprehension performance of the cohort of students who were in first grade during the first year of Reading First implementation. This figure shows the greatest percentage increase in reading comprehension between first and second grades with the growth leveling and even dropping off in third grade. Differences in starting points and strength of growth between the clusters are apparent. Students in Cluster Two have shown the most solid and consistent growth in reading comprehension since 2005 with a 48% increase in the percentage of students at or above grade level. This level of performance is followed by Cluster One with a 40% increase. Cluster Three has shown the least amount of growth with only a 24% increase in the percent of students performing at or above grade level in reading comprehension.
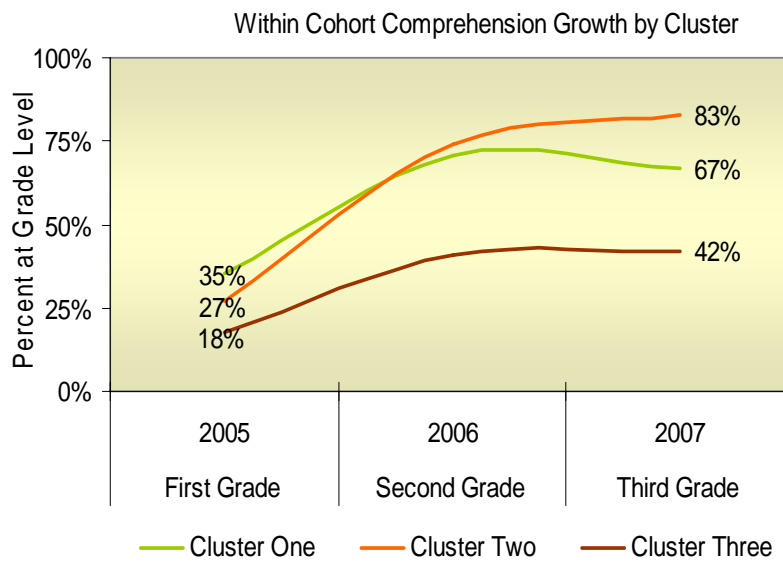

Figure 20: Comprehension growth in first, second, and third grades by cluster 2005-2007.

RECOMMENDATIONS

Although there have been increases in the percentage of students performing at or above grade level in reading comprehension since the inception of Reading First in Nebraska it is recommended that teachers at all three grade levels increase the level of instructional focus allocated to reading comprehension instruction. The aim of instructional improvements in Nebraska Reading First schools should focus on reading comprehension *throughout* the reading process. As stated by the National Reading Panel (2000), "Comprehension is the reason for reading. If readers can read the words but do not understand what they are reading, they are not really reading" (p. 48). Effective comprehension instruction supports the student by aiding the development of effective strategies. These strategies include linking to prior knowledge before reading, monitor comprehension during reading, and organize information through the use of graphic organizers and semantic mapping throughout the reading process. Comprehension is also supported by teaching students how to recognize story structure, summarization, and question generation.