A large group of people

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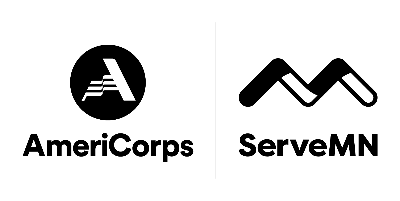
**An Evaluation of**

**Michigan Reading Corps**

**ANNUAL EVALUATION REPORT**



**2022-2023**



# About the National Science & Service Collaborative

We believe partnerships between researchers, AmeriCorps programs, and communities can transform research and practice, leading to sustainable, community-driven solutions. We value a broad and inclusive definition of “collaboration” because improving societal outcomes is maximized when the tools of science, expertise of communities, and resources of AmeriCorps are deployed in a truly collaborative way.

The Center’s portfolio includes projects to evaluate the impact of AmeriCorps programming, projects to advance the existing knowledge base in education, and development projects to bring new and innovative programming to communities across the nation.

<https://nssc.serveminnesota.org/>

**Authors**

Patrick Kaiser, Director of Education Evaluation, ServeMinnesota

David Parker, Vice President of Research and Development, ServeMinnesota

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# Executive Summary

Reading Corps is an AmeriCorps program that provides schools with trained literacy tutors to support reading development for students in Kindergarten through grade 3. Reading Corps tutors are trained to implement evidence-based literacy instruction and assessment protocols. Tutors are supported by a multi-level coaching model that includes site-based and external coaches. Full-time tutors work with approximately 15-18 students for 20 minutes each day. The research-based tutoring interventions are supplemental to the core reading instruction provided at each school. The goal of the tutoring is to raise individual students’ literacy levels so that they are on track to meet or exceed the next program-specified literacy benchmark.

The Reading Corps evaluation addresses four broad questions with data collected during the 2022-23 school year.

**1. What is the scope of the Reading Corps program?**

119 Reading Corps tutors served a total of 2,106 students across 64 schools. Black or African American and White were the largest racial/ethnic categories for participating students.

**2. To what extent was the Reading Corps program implemented as intended?**

Reading Corps coaches observed tutors administering assessments and delivering interventions throughout the school year. These observations allow for coaches to build on the tutor’s formal training and to help tutors improve their implementation of the Reading Corps model. The results of the observations show that assessments and interventions were conducted with high levels of mean fidelity (>95% accuracy) and in accordance with their established evidence base.

On average, students received 64 minutes of tutoring per week across 20 weeks. White students tended to receive both more tutoring sessions and more minutes of tutoring per week than non-white students.

**3. To what extent did participating students improve their literacy skills?**

Tutors administer measures of elementary literacy to identify eligible students and track student progress during intervention. The measures assess phonics skills (i.e., knowing sounds and simple word-level phonetic relationships) and reading fluency skills (i.e., how well the student reads connected text).

Weekly progress monitoring scores on these assessments for participating students demonstrated that 69% of students had a weekly growth rate exceeding the target growth, which means these students were closing their individual achievement gap and catching up to their grade level targets. A greater percentage of white students exceeded target growth compared to non-white students on four of the five grades and measures.

When asked in a survey about the impact of the program on students, nearly all tutor, Internal Coach, school administrator, and classroom teacher respondents indicated participation in Reading Corps had a positive impact on students.

**4. How did serving as a tutor impact their skills and knowledge related to education and their future career goals?**

96% of tutor respondents to an end-of-year survey from the evaluation team indicated Reading Corps had a positive impact on them personally. Nearly all respondents also said their service increased their knowledge and skills related to education. Additionally, 62% of respondents answered that they are likely or very likely to pursue a career in education as a result of their service. These results indicate Reading Corps likely makes a noteworthy contribution to the education career pipeline in the communities where tutors serve.

# Introduction

## Reading Corps Overview

Reading Corps is an AmeriCorps program that provides schools with trained literacy tutors to support reading development for students in Kindergarten through grade 3. Reading Corps tutors are trained to implement evidence-based literacy instruction and assessment protocols.

The Reading Corps model aligns with Response-to-Intervention (RTI) or Multi-Tier System of Supports (MTSS), which are two descriptions of a framework for delivering educational services effectively and efficiently (Burns et al., 2016). The key aspects of that alignment include the following:

* Clear literacy targets at each grade level
* Benchmark assessment three times a year to identify students eligible for individualized interventions
* Evidence-based interventions
* Frequent progress monitoring during intervention delivery
* High-quality training in program procedures, coaching, and observations to support fidelity of implementation

In the RTI, or MTSS framework, data play the key roles of screening student eligibility for additional services and monitoring student progress towards achieving academic goals (i.e., benchmarks). Reading Corps screens students for program eligibility three times a year (i.e., fall, winter, spring) using empirically-derived grade- and content-specific performance benchmarks. Eligible students (defined as students scoring below target scores) are determined potential candidates to receive supplemental Reading Corps support.

Reading Corps is focused on intervention in the “Big Five Ideas in Literacy” as identified by the National Reading Panel, including phonological awareness, phonics, fluency, vocabulary, and comprehension (Snow et al., 1998). The program is particularly strong at developing Word Recognition within the Science of Reading. Tutoring interventions promote development of these skills, and are supplemental to the core reading instruction provided at each school. The goal of the tutoring is to raise individual students’ literacy levels so that they are on track to meet or exceed the next program-specified literacy benchmark.

## Overview of the Evaluation

The Reading Corps evaluation addresses four broad questions. The evaluation report is organized around each of these questions using data that are collected throughout the school year and are recorded by the implementers of Reading Corps. Program administrators collect data about tutors and schools, including survey responses. Tutors collect data about student dosage and literacy outcomes. Coaches collect specific details about tutor implementation of interventions and assessments. These data are used to answer the following questions:

1. What is the scope of the Reading Corps program?
2. To what extent was the Reading Corps program implemented as intended?
3. To what extent did participating students improve their literacy skills?
4. How did serving as a tutor impact their skills and knowledge related to education and their future career goals?

# 1. What is the scope of the Reading Corps program?

## Schools and Tutors

Reading Corps partners with elementary schools and districts to implement the program. Reading Corps program staff and participating elementary schools recruit community members to serve as Reading Corps tutors through AmeriCorps. Tutors commit to serving a set number of hours per week (i.e. full-time AmeriCorps members commit to complete 1,200 hours of service). Tutors receive a living allowance as well as other benefits and are provided coaching by school staff and a program “Coaching Specialist” throughout their service term. Upon completion of their service, members receive a Segal AmeriCorps Education Award that can be used to pay education costs at qualified institutions of higher education, for educational training, or to repay qualified student loans.

Table 1 displays the number of participating schools, Coaching Specialists, and tutors that served during the 2022-23 program year.

**Table 1. Schools, Coaches, and Tutors**

|  |  |  |
| --- | --- | --- |
| **Schools** | **Coaching Specialists** | **Tutors\*** |
| 64 | 5 | 119 |

*\*Defined as having entered tutoring minutes for at least one student in the Reading Corps data management system.*

Reading Corps tutors receive training through an online Learning Management System (LMS). The intensive, information-filled courses on the LMS provide foundational training in the research-based literacy interventions employed by Reading Corps. Throughout the courses tutors learn the skills, knowledge, and tools needed to serve as literacy interventionists. Tutors are provided with detailed literacy manuals as well as online resources that mirror and supplement the contents of the manual (e.g., videos of model interventions and best practices). Both the manuals and online resources are intended to provide tutors with just-in-time support and opportunities for continued professional development and skill refinement. Additional training is provided throughout the tutors’ year of service.

In addition to extensive training, Reading Corps provides tutors with multiple layers of supervision to ensure integrity of program implementation. Schools identity a staff member to serve as an Internal Coach, who is typically a literacy specialist, teacher, or curriculum director, to serve as immediate on-site supervisor, mentor, and advocate for tutors. The Internal Coach’s role is to monitor tutors and provide guidance in the implementation of Reading Corps’s assessments and interventions. As the front-line supervisor, the Internal Coach is a critical component of the supervisory structure.

Coaching Specialists, who are either program staff or contracted consultants for Reading Corps, provide both tutors and Internal Coaches with expert support on literacy instruction and ensure implementation integrity of Reading Corps program elements. In addition to these two coaching layers, a third layer consisting of AmeriCorps program support helps ensure a successful year of AmeriCorps service. Program support staff are Reading Corps employees who provide administrative oversight for program implementation to schools participating in Reading Corps.

The number of tutors serving varies by program year based on a number of factors including tutor recruitment, tutor types (i.e. full-time or part-time tutors), school interest, tutor retention, and available public and private funding. Figure 1 displays the number of tutors who served each year of the program.

**Figure 1. Number of Tutors by Year**

## School Characteristics

Reading Corps strives to serve students and schools that would benefit the most from additional resources, for which the percentage of students at the school who are eligible for the federal free and reduced-price lunch (FRPL) program can be a useful indicator. Students from families with incomes at or below 185 percent of the Federal poverty level are eligible for free or reduced-price meals. Figure 2 shows the distribution of Reading Corps schools based on their school level FRPL percentage. The majority of students at 89% of participating schools are eligible for Free or Reduced Price-Lunch. Only 3% of participating schools have less than 25% of students eligible for the FRPL program, indicating most tutors were placed in schools where access to other resources may be at least somewhat limited.

**Figure 2. Distribution of Schools by Student Eligibility for Free or Reduced Price-Lunch Program**

*Note: Data not available for two schools.*

## Students Tutored

Students are identified as good candidates for Reading Corps participation through a two-step process. First, teachers or other school staff recommend students for Reading Corps based on student performance or previous service. Second, tutors administer 1-minute benchmark assessments to recommended students. Students who score below benchmark targets that are linked to future academic success are eligible to receive Reading Corps tutoring (see Appendix A for more information on the benchmark targets).

After identifying eligible students, the tutor works with their Internal Coach to select which students will be served, called the tutor’s “caseload”. Coaches set the caseload using a number of factors such as the school’s schedule and other services available to eligible students.

The number of students on a caseload depends on the tutor’s service commitment. Full-time tutors aim to serve 15 or more students each day while part-time tutors serve 10 students.

Table 2 displays the number of students served by grade across all schools. Some schools choose to serve more students in certain grades which can lead to an uneven distribution of students served across grades.

**Table 2. Number of Students Tutored**

|  |  |
| --- | --- |
| **Grade** | **Number of Students** |
| Kindergarten | 267 |
| First | 607 |
| Second | 591 |
| Third | 641 |
| **Total** | **2,106** |

The number of students served varies by program year based on many factors including tutor recruitment and retention, the types of tutors serving (i.e. full-time or part-time), whether students are receiving one-on-one or paired intervention, and the frequency of students exiting or graduating from the program. Figure 3 displays the number of students who were tutored each year of the program. Note the number of students served in 2019-20, 2020-21, and 2021-22 were significantly impacted by the COVID-19 pandemic.

**Figure 3. Number of Students Tutored by Year**

Reading Corps tutors record demographic information of students they tutor, which allows evaluators to disaggregate student outputs and outcomes by important demographics to ensure the program is having an equitable impact. The information is also used in various reports to describe the students participating in the program. Figure 4 shows Black or African American students and white students were the largest racial/ethnic groups participating in the program, and a relatively high percentage (>22%) of students served were identified as English Learners.

**Figure 4. Student Demographics**

# 2. To what extent was the Reading Corps program implemented as intended?

## Coaching Observations

Ensuring accurate, effective implementation is a core principle of Reading Corps. Both types of coaches—Internal Coaches and Coaching Specialists— provide tutors with expert support on literacy instruction and ensure implementation integrity of Reading Corps program elements through ongoing monitoring and observation.

During coaching sessions Reading Corps Coaching Specialists and Internal Coaches discuss student selection for service, track student progress for data-based decisions, and observe tutors administering assessments and delivering interventions. The observations allow coaches to build on a tutor’s formal training and to help tutors improve their implementation of the Reading Corps model.

Coaches are expected to observe tutors administering each assessment throughout the year to ensure seasonal benchmark data are collected accurately. These observations usually occur before each seasonal benchmark window. Coaches are also expected to observe tutors delivering interventions at least once per month to ensure fidelity to each intervention’s effective instructional processes. Table 3 displays the percent of Coaching Specialists and Internal Coaches who observed tutors administering assessments and delivering interventions at least one time during the school year. The table also shows the percentage of coaches who met the program’s expectation for observations throughout the school year. Coaching Specialists observed all tutors administering assessments at least once and provided intervention observations throughout the year to most tutors. Internal Coaches provided less frequent observations, suggesting it was perhaps more difficult for school staff to provide ongoing coaching support for their tutors.

**Table 3. Assessment and Intervention Coaching Observations by Coach Role**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Observation Type** | **Coaching Specialist** | | **Internal Coach** | |
|  | **Percent of Tutors Observed at Least Once** | **Percent of Tutors Observed in Accordance with Expectations\*** | **Percent of Tutors Observed at Least Once** | **Percent of Tutors Observed in Accordance with Expectations\*** |
| Assessment | 100% | 86.2% | 54.3% | 25.9% |
| Intervention | 99.1% | 92.2% | 80.2% | 64.7% |

*Note: Table includes tutors that served for a minimum of two months.  
\*Coaches are expected to conduct assessment observations before each benchmark window and intervention observations each month.*

## Tutor Fidelity

During coaching sessions, coaches complete a fidelity checklist for each assessment or intervention they observe Each checklist lists the important steps for accurate completion such as starting the timer immediately when child says the first word or letter during an assessment or the tutor using appropriate pacing during a reading fluency intervention. After completing each assessment or intervention fidelity observation, coaches enter the number of checklist items that the tutor delivered correctly into the online Reading Corps Data Management System. The percent fidelity is then calculated by dividing the number of items delivered correctly by the total number of items.

If tutors do not properly administer an assessment, coaches will provide targeted training and observe the tutor delivering the assessment again. Ongoing observation and coaching continue until the tutor achieves at least 90% accuracy. This process helps to ensure assessment data are properly collected and that the results accurately measure each student’s literacy skills. Table 4 displays the total number of fidelity checks completed and the average fidelity from assessment and intervention observations.

**Table 4. Assessment and Intervention Fidelity**

|  |  |  |
| --- | --- | --- |
| **Fidelity Type** | **Total Checks Collected** | **Average Fidelity** |
| Assessment | 1,917 | 98.8% |
| Intervention | 1,592 | 98.5% |
| **Total** | **3,509** | **98.6%** |

For each tutor, all observations are combined to calculate their overall assessment and intervention fidelity. A tutor’s average fidelity can vary throughout the year, with lower scores being more common at the beginning of the year. Figure 5 shows the distribution of tutors by their average fidelity. Fidelity tends to be very high for nearly all tutors, suggesting training and coaching helps tutors implement key components of the program accurately.

**Figure 5. Distribution of Tutors by Assessment and Intervention Fidelity Range**

Figures 6 also shows the distribution of tutors by their assessment and intervention average fidelity, but the data are disaggregated between tutors at schools where fewer than 75% of students are eligible for the free or reduced-price lunch program and tutors at schools with 75% or more students eligible. For both assessment and intervention implementation, fidelity data is lower at schools with a high percentage of students eligible for the free-reduced priced lunch program, indicating tutors at these schools may need greater support delivering tutoring interventions in this context.

**Figure 6. Distribution of Tutor Fidelity at Schools with Less Than (left panel) or More Than (right panel) 75% of Students Eligible for Free-Reduced Price Lunch**

## Tutor Caseloads

Tutors work with their coaches to determine which students they will serve based on student eligibility, teacher recommendations, other services offered at the school, and general school priorities for students to serve.

Table 5 shows the average number of students served per tutor based on their minimum caseload expectation. The last column of the table shows the percentage of tutors who met or exceeded their caseload expectations for at least 80% of the weeks they served in the program. Tutors with a caseload goal of 10 were generally able to meet this expectation. However, less than half of tutors with a caseload target of 15 met this expectation 80% of the time, highlighting a potential opportunity for the program to serve more students by ensuring tutors have full caseloads.

**Table 5. Tutor Caseloads**

|  |  |  |  |
| --- | --- | --- | --- |
| **Minimum Caseload Expectation** | **Number of Tutors** | **Average Total Students Served**  **per Tutor** | **Percentage of Tutors Meeting Caseload Expectation** |
| 10 students | 41 | 12.8 | 64% |
| 15 students | 76 | 20.8 | 33% |

## Student Dosage

Tutors work with students on their caseload every day for 20 minutes. Most tutoring is completed one-to-one, but a subset of interventions can be delivered in groups of two students. Tutors record each student’s daily minutes in the online Reading Corps Data Management System. Table 6 shows the total number of tutoring sessions and the average number of sessions, weeks, and minutes per week students received in each grade. The table also disaggregates the data for white and non-white students. Students received a substantial number of tutoring sessions with over an hour of tutoring each week across multiple months. White students tended to receive both more tutoring sessions and more minutes of tutoring per week.

**Table 6. Tutoring Dosage by Grade and Race**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Student Race** | **Students Tutored** | **Total Tutoring Sessions** | **Average Tutoring Sessions per Student** | **Average Tutoring Weeks per Student** | **Average Tutoring Minutes per Week per Student** |
| **Grade K** | **267** | **12,224** | **45.8** | **14.3** | **63.1** |
| White | 89 | 4,742 | 53.3 | 16.4 | 66.0 |
| Non-White | 154 | 6,534 | 42.4 | 13.2 | 63.2 |
| **Grade 1** | **607** | **40,543** | **66.8** | **20.1** | **66.3** |
| White | 222 | 15,551 | 70.0 | 20.8 | 67.7 |
| Non-White | 290 | 18,429 | 63.5 | 19.2 | 65.6 |
| **Grade 2** | **591** | **43,365** | **73.4** | **22.2** | **65.6** |
| White | 223 | 16,908 | 75.8 | 22.7 | 66.7 |
| Non-White | 297 | 21,836 | 73.5 | 22.3 | 65.2 |
| **Grade 3** | **641** | **41,430** | **64.6** | **20.6** | **61.8** |
| White | 177 | 12,055 | 68.1 | 20.8 | 64.5 |
| Non-White | 381 | 24,807 | 65.1 | 21.2 | 60.4 |
| **Total** | **2,106** | **137,562** | **65.3** | **20.1** | **64.4** |
| White | 711 | 49,256 | 69.3 | 20.9 | 66.4 |
| Non-White | 1,122 | 71,606 | 63.8 | 19.9 | 63.4 |

*Note: The subtotals do not equal the totals as they exclude students with an Unknown race/ethnicity in the program database.*

In additional to recording the number of tutoring minutes, tutors also record the reason a scheduled tutoring session was not delivered. Tutors are able to indicate if a session was missed for each of the following reasons: student absence from school, tutor absence from school, tutor receiving training, tutor administering an assessment to the student instead of delivering an intervention, or other for any reason not provided.

Table 7 displays the percentage of days tutoring sessions were delivered along with the rate of each missed tutoring session reason. The table also disaggregates the data for white and non-white students. Student and tutor absences were the most common reasons for missed sessions. White students had a greater percentage of sessions delivered than non-white students, with tutor and student absences being the most substantial difference between the two groups.

**Table 7. Tutoring Attendance by Grade and Race**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Student Race** | **Session Attended** | **Tutor Absent** | **Student Absent** | **Assessing Student** | **Tutor Training** | **Other** |
| **Grade K** | **71%** | **9%** | **12%** | **2%** | **1%** | **6%** |
| White | 73% | 9% | 9% | 1% | 0% | 6% |
| Non-White | 70% | 9% | 14% | 1% | 1% | 5% |
| **Grade 1** | **73%** | **9%** | **9%** | **1%** | **1%** | **8%** |
| White | 77% | 7% | 7% | 1% | 1% | 8% |
| Non-White | 71% | 9% | 11% | 1% | 1% | 7% |
| **Grade 2** | **73%** | **9%** | **8%** | **1%** | **1%** | **7%** |
| White | 76% | 8% | 6% | 1% | 1% | 7% |
| Non-White | 72% | 9% | 10% | 1% | 1% | 7% |
| **Grade 3** | **68%** | **12%** | **9%** | **2%** | **1%** | **9%** |
| White | 74% | 9% | 7% | 0% | 1% | 9% |
| Non-White | 64% | 14% | 11% | 2% | 1% | 9% |
| **Total** | **71%** | **10%** | **9%** | **1%** | **1%** | **8%** |
| White | 76% | 8% | 7% | 1% | 1% | 8% |
| Non-White | 69% | 11% | 11% | 1% | 1% | 7% |

Table 8 displays the percentage of days tutoring sessions were delivered along with the rate of each missed tutoring session reason disaggregated by site level Free-Reduced Price Lunch rate. Students at sites with a greater percentage of students eligible for Free-Reduced Price Lunch had a lower percentage of sessions attended across most grade levels. Students at sites with the greatest percentage of students eligible for FRPL tended to have more missed sessions due to student and tutor absences.

**Table 8. Tutoring Attendance by Grade and Site Free-Reduced Price Lunch**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Site FRPL Percent** | **Session Attended** | **Tutor Absent** | **Student Absent** | **Assessing Student** | **Tutor Training** | **Other** |
| **Grade K** | **71%** | **9%** | **12%** | **1%** | **1%** | **6%** |
| 0-24% | 65% | 3% | 9% | 0% | 0% | 23% |
| 25-49% | 84% | 2% | 4% | 0% | 1% | 8% |
| 50-74% | 75% | 6% | 10% | 2% | 1% | 6% |
| 75-100% | 68% | 11% | 13% | 1% | 1% | 5% |
| **Grade 1** | **73%** | **9%** | **9%** | **1%** | **1%** | **8%** |
| 0-24% | 75% | 9% | 6% | 0% | 0% | 9% |
| 25-49% | 77% | 4% | 11% | 0% | 0% | 8% |
| 50-74% | 75% | 6% | 8% | 1% | 1% | 8% |
| 75-100% | 70% | 11% | 10% | 1% | 1% | 6% |
| **Grade 2** | **74%** | **9%** | **8%** | **1%** | **1%** | **7%** |
| 0-24% | 73% | 10% | 8% | 0% | 0% | 9% |
| 25-49% | 73% | 11% | 6% | 0% | 1% | 8% |
| 50-74% | 76% | 8% | 7% | 1% | 1% | 8% |
| 75-100% | 71% | 10% | 10% | 1% | 1% | 7% |
| **Grade 3** | **68%** | **12%** | **9%** | **1%** | **1%** | **9%** |
| 0-24% | 67% | 19% | 6% | 0% | 0% | 7% |
| 25-49% | 72% | 9% | 6% | 1% | 1% | 11% |
| 50-74% | 72% | 9% | 8% | 1% | 1% | 9% |
| 75-100% | 63% | 14% | 11% | 2% | 1% | 9% |
| **Total** | **71%** | **10%** | **9%** | **1%** | **1%** | **8%** |
| 0-24% | 73% | 10% | 7% | 0% | 0% | 10% |
| 25-49% | 74% | 9% | 7% | 0% | 1% | 10% |
| 50-74% | 75% | 8% | 8% | 1% | 1% | 8% |
| 75-100% | 68% | 12% | 11% | 2% | 1% | 7% |

Reading Corps tracks tutoring attendance for each student throughout the school year using a ‘percent tutoring’ metric. A student’s percent tutoring is equal to the number of tutoring sessions delivered divided by the number of days tutoring was scheduled to happen (i.e. the metric ignores days there is not school). The program also tracks a tutor’s percent tutoring by combining all of their individual student’s percent tutoring into a tutor average.

The program strives for each student and tutor to achieve at least 80% tutoring. Tutors falling below this target are provided extra support to improve the frequency of tutoring delivery wherever possible. Figure 7 displays the distribution of students by their percent tutoring range. The majority of students received tutoring between 61-80% of their scheduled days, indicating a growth opportunity for the program.

**Figure 7. Distribution of Students by Percent Tutoring Range**

# 3. To what extent did participating students improve their literacy skills?

## Measures of Elementary Literacy

Data for literacy outcomes are reported from student performance on measures of early literacy that are designed for students in Kindergarten through grade 3. The measures assess phonics skills (i.e., knowing sounds and simple word-level phonetic relationships) and reading fluency skills (i.e., how well the student reads connected text). The specific measures are listed below (see Appendix B for the research base):

* Test of Letter Sounds
* Test of Nonsense Words (English)
* CBMReading

The measures are administered by Reading Corps tutors at each screening period or “benchmark window” (fall, winter, and spring). Tutors assess students who were previously tutored by Reading Corps and students identified by classroom teachers as potential candidates for tutoring. Benchmark scores are compared to seasonal grade level targets that predict future reading success. Students who score below target are eligible to receive Reading Corps tutoring (see Appendix A for more information).

The literacy assessments are also used to measure the progress of students while they are receiving tutoring. Tutors “progress monitor” each student they are tutoring one time per week and track their progress toward the proficiency targets. Students’ weekly scores are used by coaches to determine if students have made enough progress to “exit” the program and no longer receive tutoring.

## Student Performance During Tutoring

A student’s weekly progress monitoring score allows the program to measure their growth while receiving tutoring. This growth can be compared to “target growth”, the amount of weekly growth a student who is on target in the fall would need to maintain throughout the year to remain on target in the spring. Students who are eligible for Reading Corps need growth rates above target growth if they are going to meet future grade level targets. In other words, these students need to make more than a year’s worth of growth if they are going to “catch up” and close their individual achievement gap.

Table 9 displays the number and percentage of students with above target growth for each grade and measure. 69% of all students tutored were catching up to their grade level targets, with Kindergarten and Grade 3 having the highest percentage of students above target growth.

**Table 9. Student Growth**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Grade K** | **Grade 1** | **Grade 1\*** | **Grade 2** | **Grade 3** | **Total\*\*\*** |
|  | **Test of Letter Sounds** | **Test of Nonsense Words (Eng.)** | **CBMReading** | | |  |
| Number of Students\*\* | 227 | 368 | 450 | 558 | 570 | 1,905 |
| Number of Students Above Target Growth | 192 | 264 | 217 | 322 | 421 | 1,316 |
| Percentage of Students Above Target Growth | 84.6% | 71.7% | 48.2% | 57.7% | 73.9% | 69.1% |

\* Students in this group may have also participated in Grade 1 Test of Nonsense Words (Eng.).

\*\* Students must have at least 6 progress monitoring data points to be included in the growth rate calculations.

\*\*\* Students counted in both the Grade 1 Test of Nonsense Words (Eng). and Grade 1 CBMReading columns are counted in the total number of students one time and in the number of students above target total if they exceeded the target on at least one of the two measures.

Figure 8 disaggregates the above student outcome data into non-white and white students in order to better understand program impact across key demographic considerations. Across four of the five grades and measures, a greater percentage of white students exceeded target growth compared to non-white students. The differences between the two groups ranged from 0 percentage points to 12 percentage points. Similarly, Figure 9 disaggregates student outcome data by the school level percentage of students eligible for the free-reduced price lunch program. Students at schools with the greatest percentage of students eligible for the FRPL program had a lower percentage for exceeding target growth than students at schools with the fewest percentage of students eligible for the FRPL program in three of the five grades and measures. However, for two of the five measures, students at schools in the medium risk percentage (50-74% of students eligible for FRPL program) had the greatest percentage of students exceeding target growth. Rigorous comparative research shows that students from various backgrounds make marked improvements during Reading Corps tutoring, as compared to randomly identified peers who do not access the program (Markovitz et al., 2014, 2018, 2018), but Figure 8 and Figure 9 highlight a need to ensure students *across* demographic backgrounds benefit to the greatest possible extent.

**Figure 8. Percentage of Students Above Target Growth, By Race**

**Figure 9. Percentage of Students Above Target Growth, By School Free-Reduced Price Lunch Percentage**

*Note: Data not shown for grade/site FRPL combinations with sample sizes below 10 students.*

Comparing the percentage of students exceeding target growth across program years is an effective way to track overall program effectiveness and identify potential needs for program improvement. Figure 10 displays the percentage of students above target growth for the past five years. In all five measures, the percentage of students exceeding target growth in 2022-23 was greater than the previous year for three of the five grades and measures.

**Figure 10. Percentage of Students Above Target Growth, by Year**

*Notes: Use caution when comparing outcome data across years as the program was significantly disrupted by the COVID-19 pandemic. Procedures for scoring Test of Nonsense Words changed in 2022-23.*

## Student Performance After Tutoring

Students who consistently meet grade level targets during tutoring graduate or “exit” from the program, allowing another eligible student at the school to receive tutoring. Reading Corps continues to assess exited students both weekly and at benchmark windows to track the maintenance of their skills and determine if students would benefit from resuming tutoring.

Table 10 displays the percentage of students who exit the Reading Corps program by meeting grade level targets who then later meet the spring benchmark near the end of the school year (see Appendix A for more information on the Reading Corps targets). In total, about 54% of students who exited the program also met the spring benchmark target score. Kindergarten and grade 1 had the highest percentage of students who exited and later met the spring benchmark.

**Table 10. End-of-Year Performance of Exited Students**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grade** | **Number of Students** | **Number Exited\*** | **Exited and Have a Spring Benchmark** | **Exited and Met Spring Benchmark** | **Percentage Exited and Met Spring Benchmark** |
| Kindergarten | 267 | 129 | 127 | 90 | 70.9% |
| Grade 1 | 607 | 128 | 116 | 68 | 58.6% |
| Grade 2 | 591 | 112 | 109 | 48 | 44.0% |
| Grade 3 | 641 | 154 | 144 | 60 | 41.7% |
| **Total** | **2,106** | **523** | **496** | **266** | **53.6%** |

*\* “Exited” indicates student progress was at or above expected grade-level trajectories for skill improvement. Reading Corps defines at or above grade-level trajectory as having 3-5 consecutive weekly points above a target growth line plus 2 points above an upcoming seasonal benchmark target score.*

## Perceptions of Student Performance

In the spring of each program year, Reading Corps evaluators distribute an online survey to tutors, Internal Coaches, school administrators, and classroom teachers of students participating in Reading Corps. The survey asks a wide-range of questions regarding their experience with Reading Corps and potential impact of the program.

Figure 11 displays the percentage of respondents who agreed or disagreed that Reading Corps had a positive impact on students. The survey results are notably positive with nearly all respondents agreeing or strongly agreeing that Reading Corps had a positive impact on students.

**Figure 11. Survey Results on Student Impact**

*Note: Coaches, administrators, and teachers were asked to agree or disagree with the statement “Participation in Reading Corps had a positive impact on students” while tutors were asked “My service had a positive impact on students.*

# 4. How did serving as a tutor impact their skills and knowledge related to education and their future career goals?

While supporting student literacy growth is the primary goal for the program, Reading Corps also strives to provide tutors with an overall positive experience and prepare them for any future career they might pursue, especially careers in the education field. As previously described, Reading Corps evaluators distribute a survey to tutors in the spring of each program year. The survey asks tutors a series of questions on their experience in Reading Corps and the impact the program had on them, their students, and their school. Survey results are used to evaluate the program’s impact on the tutors themselves.

## Service Experience

A common practice in surveys is to ask the respondent if they would recommend the program to others, as one’s willingness or unwillingness to recommend encompasses the overall experience of serving in Reading Corps. Figure 12 shows that 91% of tutors would recommend serving as a member of Reading Corps, with the vast majority of these respondents indicating they strongly agree. These results highlight the highly positive experience tutors had serving in the Reading Corps, and suggests a positive experience while serving.

The survey also asked tutors if serving in Reading Corps had a positive impact on them personally. Figure 13 shows that 96% of tutors agree or strongly agree service had a positive impact on them, demonstrating the positive personal impact of serving.

**Figure 12. Tutor Satisfaction Figure 13. Impact on Tutors**

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Figures 14 and 15 disaggregate the two above questions by tutor race. While nearly all tutors of both groups were generally positive about recommending the program to others and service having a positive impact on them personally, Black or African American tutors were more likely than white tutors to say they would definitely recommend serving while White respondents were more likely to strongly agree service had a positive impact on them.

**Figure 14. Tutor Satisfaction, by Race**

**Figure 15. Impact on Tutor, by Race**

## Skill Development and Future Careers

Reading Corps strives to support tutor professional development through the training, coaching, service experience, and other professional development support provided by the program. In particular, Reading Corps aims to increase the teacher and school staff pipeline in communities through its tutors pursuing careers in education after their service. To evaluate these outcomes in the short term, the spring survey asks tutors to respond to questions related to their increased knowledge and skills as well as any potential plans to pursue a career in education.

Figure 16 shows that 94% of respondents agree or strongly agree that their service increased their knowledge and skills related to education, demonstrating the program is having a positive impact on tutors in this area. Figure 17 displays tutor responses related to the likelihood they will pursue a career in education as a result of their service in Reading Corps. 35% of respondents answered that they are very likely to pursue a career in education as a result of their service and 27% responded that they are likely to do so. These results indicate Reading Corps likely makes a noteworthy contribution to the education career pipeline in the communities where tutors serve.

**Figure 16. Tutor Increased Knowledge and Skills**

**Figure 17. Tutors Pursuing Careers in Education**

Figures 18 and 19 disaggregate the two above questions by tutor race. Nearly all tutors of both groups agreed or strongly agreed their service increased they knowledge and skills related to education. Black or African American tutors were more likely than white tutors to indicate they are very likely to pursue a career in education as a result of their service, indicating the program may be impacting the diversity of the educator pipeline where tutors serve.

**Figure 18. Tutor Increased Knowledge and Skills, by Race**

**Figure 19. Tutors Pursuing Careers in Education, by Race**

# References

Burns, K.M., Jimerson, S.R. VanDerHeyden, A. M., & Deno, S.L., (2016). Toward a unified Response-to-Intervention model: Multi-tiered systems of support. In S.R. Jimerson, M.K. Burns, & A. VanDerHeyden (Eds.), *Handbook of Response to Intervention, 2nd Ed.* (pp. 719-732). New York: Springer.

Markovitz, C.; Hernandez, M.; Hedberg, E.; Silberglitt, B. (2014). *Outcome Evaluation of the Minnesota Reading Corps K3 Program*. NORC at the University of Chicago: Chicago, IL.

Markovitz, C.; Hernandez, M.; Hedberg, E.; Whitmore, H.; Satorius, J. (2018). *Outcome Evaluation of the Minnesota Reading Corps K-3 Program (2017-18)*. NORC at the University of Chicago: Chicago, IL.

Markovitz, C.; Hernandez, M.; Hedberg, E.; Neishi, K. (2018). *Impact Evaluation of the Wisconsin Reading Corps Program*. NORC at the University of Chicago: Chicago, IL.

Snow, C., Burns, M., & Griffin, P. (Eds.), (1998). *Preventing reading difficulties in young children*. Washington DC: National Academy Press

# Appendix A: Assessment Measures and Procedures

The following table depicts which measures are used at each grade across the school year. **BOLDED** measures are used to progress monitor (Grade 1 students are monitored for progress with two measures during part of the winter).

**Assessment Measures by Grade and Benchmark Season**

|  |  |  |  |
| --- | --- | --- | --- |
| **Grade** | **Fall** | **Winter** | **Spring** |
| Kindergarten | **Test of Letter Sounds** | **Test of Letter Sounds**  Test of Nonsense Words (English) | **Test of Letter Sounds**  Test of Nonsense Words (English) |
| Grade 1 | **Test of Letter Sounds**  Test of Nonsense Words (English) | **Test of Nonsense Words (English)**  **CBMReading**  **(3 passages)** | **CBMReading**  **(3 passages)** |
| Grade 2 | **CBMReading**  **(3 passages)** | **CBMReading**  **(3 passages)** | **CBMReading**  **(3 passages)** |
| Grade 3 | **CBMReading**  **(3 passages)** | **CBMReading**  **(3 passages)** | **CBMReading**  **(3 passages)** |

For each eligibility assessment, a target score was identified as the goal for the beginning, middle, and end of the school year. The original Reading Corps target scores using AIMSweb brand passages were based on research conducted at the St. Croix River Education District in Minnesota, which documented the predictive and concurrent validity of these measures with the state reading proficiency assessment. As a result of the strong correlations between performance on the selected AIMSweb fluency measures and the statewide reading assessment, a series of cut scores were originally identified. These original benchmark scores, or target scores, defined levels of performance on the fluency measures that strongly predict future success on the grade 3 statewide reading assessment.

In the 2013-2014 school year, Reading Corps starting using FAST brand passages. With increased performance expectations for 3rd grade students on state accountability tests across the country, the target scores were updated in 2014-2015 to reflect performance that predicts proficient state test performance.

The table below specifies assessments given at each grade level and the FAST benchmark scores for each assessment during several points throughout the school year that maintain their predictive nature with reading proficiency targets that correspond to college readiness.

**Benchmark Targets by Grade and Season**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grade** | **Measure** | **Fall**  **Aug. 15-Sept. 30** | **Winter**  **Jan. 2-Feb. 3** | **Spring**  **Apr. 24-May 26** |
| Kindergarten | Test of Letter Sounds | 8 | 27 | 48 |
| Grade 1 | Test of Nonsense Words (English) | 12 | 21 |  |
| Grade 1 | CBMReading |  | 52 | 82 |
| Grade 2 | CBMReading | 63 | 97 | 116 |
| Grade 3 | CBMReading | 100 | 122 | 135 |

The target scores for each assessment grow across years from Kindergarten to Grade 3, which results in benchmarks for reading performance that students should maintain in order to predict future reading success. Within a single year, these benchmarks are used to establish the rates of growth at which a student should grow to maintain that likelihood of success. For example, the fall Grade 2 target score is 63 on CBM-Reading. The spring Grade 2 target score on this measure is 116. To grow from 63 to 116 in one academic year, a student would need to gain 1.61 words correct per minute per week on the CBM-Reading assessment. Thus, 1.61 words growth per week becomes the expectation for Grade 2 growth rates.

# Appendix B: Assessment Research Base

Assessment tools were selected for use in Reading Corps because of their well-established statistical reliability and validity for screening and progress monitoring purposes. The Test of Letter Sounds, Test of Nonsense Words, and Curriculum-based Measures for Reading (CBMReading) are measures of early literacy skills that have been supported by decades of thorough research, most recently as part of the Formative Assessment System for Teachers (FAST). Reading Corps uses measures from FAST, which are some of the strongest available measures for assessing the skills targeted by Reading Corps. CBMReading provides an assessment of connected text reading. Early and ongoing research on this measure has also been conducted at the University of Minnesota. All these measures fit under the umbrella of “Curriculum-Based Measurement (CBM) and are fluency-based assessments, meaning that students respond to an unlimited number of items within a fixed amount of time and the number of correct responses is counted.

The information that follows summarizes empirical findings related to the statistical reliability and validity of the measures used in Reading Corps.

**Test of Letter Sounds:**

* r= .83 2-week test-retest reliability
* r=.80 alternate form reliability
* r= .79 with Letter Naming Fluency
* Predictive r=.72 with R-CBM

**Sources:**

* Elliott, J., Lee, S.W., & Tollefson, N. (2001). A Reliability and Validity Study of the Dynamic Indicators of Basic Early Literacy Skills – Modified. School Psychology Review, 30 (1), 33-49.
* Fuchs, L., Fuchs D. (2004). Determining Adequate Yearly Progress from Kindergarten through Grade 6 with Curriculum Based Measurement. Assessment for Effective Intervention 29 (4) 25-37.
* Howe, K. B., Scierka, B. J., Gibbons, K. A., & Silberglitt, B. (2003). A School-Wide Organization System for Raising Reading Achievement Using General Outcome Measures and Evidence-Based Instruction: One Education District’s Experience. *Assessment for Effective Intervention, 28*, 59-72.
* Scott, S.A., Sheppard, J., Davidson, M.M., & Browning, M.M. (2001). Prediction of First Graders’ Growth in Oral Reading Fluency Using Kindergarten Letter Naming Fluency. Journal of School Psychology, 39(3), 225-237.
* Ritchey, K.D (2008). Assessing Letter Sound Knowledge: A Comparison of Letter Sound Fluency and Nonsense Word Fluency. Exceptional Children 74 (4) 487-506.

**Test of Nonsense Words:**

* r= .83 one month alternate form reliability
* r=.36 to .59 with WJ-R Readiness Cluster
* Predictive r= .82 with Spring R-CBM in Spring of grade 1
* Predictive r = .65 with oral reading and .54 with maze in grade 3
* Ell Predictive r= .63 with a composite of DIBELS NWF and R-CBM

**Sources:**

* Burke, M. D., Hagan-Burke, S. (2007). Concurrent criterion-Related validity of early literacy indicators for middle of first grade. Assessment for Effective Intervention. 32(2), 66-77.
* Good, R.H., Kaminski, R.A., Shinn, M. Bratten, J., Shinn, M., & Laimon, L. (in preparation). Technical Adequacy and Decision Making Utility of DIBELS (Technical Report). Eugene, OR: University of Oregon.
* Good, R.H., Kaminski, R.A., Simmons, D., & Kame-enui, E.J. (2001). Using DIBELS in an Outcomes Driven Model: Steps to Reading Outcomes. Unpublished manuscript, University of Oregon, Eugene.
* Haager, D. & Gersten, R (April, 2004). Predictive Validity of DIBELS for English Learners in Urban Schools. DIBELS Summit conference presentation, Albuquerque, NM.
* Howe, K. B., Scierka, B. J., Gibbons, K. A., & Silberglitt, B. (2003). A School-Wide Organization System for Raising Reading Achievement Using General Outcome Measures and Evidence-Based Instruction: One Education District’s Experience. *Assessment for Effective Intervention, 28*, 59-72.
* Kaminski, R.A. & God, R.H. (1996). Toward a Technology for Assessment Basic Early Literacy Skills. School Psychology Review, 25, 215-227.
* Ritchey, K.D (2008). Assessing Letter Sound Knowledge: A Comparison of Letter Sound Fluency and Nonsense Word Fluency. Exceptional Children 74 (4) 487-506.
* Rouse, H., Fantauzzo, J.W. (2006). Validity of the Dynamic Indicators of Basic Early Literacy Skills as an Indicator of Early Literacy for Urban Kindergarten Children. School Psychology Review 35 (3)3 341-355.
* Vanderwood, M.., Linklater, D., Healy, K. (2008). Predictive Accuracy of Nonsense Word Fluency for English Language Learners. School Psychology Review 37 (1) 5-17.

**Curriculum Based Measurement – Reading (CBMReading):**

* r= .92 to .97 test retest reliability
* r= .89 to .94 alternate form reliability
* r= .82 to .86 with Gates-MacGinite Reading Test
* r= .83 to Iowa Test of Basic Skills
* r = .88 to Stanford Achievement Test
* r= .73 to .80 to Colorado Student Assessment Program
* r= .67 to Michigan Student Assessment Program
* r=.73 to North Carolina Student Assessment Program
* r=74 to Arizona Student Assessment Program
* r=.61 to .65 to Ohio Proficiency Test, Reading Portion
* r= .58 to .82 with Oregon Student Assessment Program (SAT 10)

**Sources:**

* Barger, J. (2003). Comparing the DIBELS Oral Reading Fluency indicator and the North Carolina end of grade reading assessment (Technical Report). Ashville, NC: North Carolina Teacher Academy.
* Baker S. et. al,. (2008). Reading Fluency as a Predictor of Reading Proficiency in Low-Performing, High-Poverty Schools. School Psychology Review 37 (1) 18-37.
* Burke, M. D., Hagan-Burke, S. (2007). Concurrent criterion-Related validity of early literacy indicators for middle of first grade. Assessment for Effective Intervention. 32(2), 66-77.
* Deno, S. L., Mirkin, P. K., & Chiang, B. (1982). Identifying valid measures of reading. Exceptional Children, 49. 36-45.
* Howe, K. B., Scierka, B. J., Gibbons, K. A., & Silberglitt, B. (2003). A School-Wide Organization System for Raising Reading Achievement Using General Outcome Measures and Evidence-Based Instruction: One Education District’s Experience. *Assessment for Effective Intervention, 28*, 59-72.
* Hintze, J.M, et al (2002). Oral Reading Fluency and Prediction of Reading Comprehension in African American and Caucasian Elementary School Children. School Psychology Review, 31 (4) 540-553.
* Hintze, J. M. & Silberglitt, B. (in press). A Longitudinal Examination of the Diagnostic Accuracy and Predictive Validity of R-CBM and High-Stakes Testing. *School Psychology Review.*
* Marston, D., Fuchs, L., & Deno, S. (1987). Measuring pupil progress: a comparison of standardized achievement tests and curriculum-related measures. Diagnostique, 11, 77-90.
* Marston, D. (1989). Curriculum-based measurement: What is it and why do it? In M. R. Shinn (Ed.), Curriculum-based measurement: Assessing special children (pp. 18-78). New York: Guilford Press.
* McGlinchey, M. T., & Hixson, M. D. (2004). Contemporary research on curriculum-based measurement: Using curriculum-based measurement to predict performance on state assessments in reading. School Psychology Review, 33(2), 193-204.
* Schilling, S. G., Carlisle, J. F., Scott, S. E., & Zeng, J. (2007). Are fluency measures accurate predictors of reading achievement? The Elementary School Journal, 107(5), 429-448.
* Silberglitt, B. & Hintze, J. M. (in press). Formative Assessment Using Oral Reading Fluency Cut Scores to Track Progress Toward Success on State-Mandated Achievement Tests: A Comparison of Methods. Journal of Psychoeducational Assessment.
* Shaw, R., & Shaw, D. (2002). DIBELS Oral Reading Fluency-Based Indicators of the third-grade reading skills for Colorado State Assessment Program (CSAP) (Technical Report). Eugene, OR: University of Oregon.
* Shinn, M., Good, R., Knutson, N., Tilly, W., & Collins, A. (1992). Curriculum-based measurement of oral reading fluency: A confirmatory analysis of its relation to reading. School Psychology Review, 21, 459-479.
* Stage, S. A., & Jacobsen, M. D. (2001). Predicting student success on a state-mandated performance-based assessment using oral reading fluency. School Psychology Review, 30(3), 407-420.
* Tindal, G., Germann, G., & Deno, S. (1983). Descriptive research on the Pine County Norms: A compilation of findings (Research Report No. 132). Minneapolis, MN: University of Minnesota Institute for Research on Learning Disabilities.
* Vander Meer, C. D., Lentz, F. E., & Stollar, S. (2005). The relationship between oral reading fluency and Ohio proficiency testing in reading (Technical Report). Eugene, OR: University of Oregon.
* Wilson, J. (2005). The relationship of Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Oral Reading Fluency to performance on Arizona Instrument to Measure Standards (AIMS). Tempe, AZ: Tempe School District No. 3.

# Appendix C: Intervention Research Base

The interventions used in the Reading Corps program are designed to provide additional practice that is supplemental to the core reading instructional program offered by the local school site. The interventions target automaticity and fluency of important reading skills that have been introduced by local classroom teachers. It is important to note that *Reading Corps participation is in addition to, not in replacement of*, a comprehensive core reading instructional program, and that the Reading Corps program should in no way be viewed as a substitute for high quality core instruction.

A unique feature of Reading Corps is the consistent use of research-based intervention protocols with participating students to provide this additional support. School-based Internal Coaches select from a menu of research-based supplemental reading interventions for use with participating students as listed below. For each intervention protocol sources of empirical evidence for intervention effectiveness are listed.

**Repeated Reading with Comprehension Strategy Practice**

* Nelson, J. S., Alber, S. R., & Grody, A. (2004). Effects of systematic error correction and repeated readings on reading accuracy and proficiency of second graders with disabilities. Education and Treatment of Children, 27, 186–198.
* Staubitz, J. E., Cartledge, G., Yurick, A., & Lo, Y. (2004). Repeated reading for students with emotional or behavioral disorders: Peerand trainer-mediated instruction. Behavior Disorders, 31, 51–64.
* Therrien, W. J. (2004). Fluency and comprehension gains as a result of repeated reading: A meta-analysis. Remedial and Special Education, 25, 252–261.
* Moyer, S.B. (1982). Repeated reading. Journal of Learning Disabilities, 45, 619-623.
* Rashotte, C.A., & Torgeson, J.K. (1985). Repeated reading and reading fluency in learning disabled children. Reading Research Quarterly. 20, 180-188.
* Samuels, S. J. (1979). The method of repeated reading. The Reading Teacher, 32, 403-408.
* Samuels, S.J., (1987). Information processing abilities and reading. Journal of Learning Disabilities, 20(1), 18-22.
* Sindelar, P.T., Monda, L.E., & O’Shea, L.J. (1990). Effects of repeated reading on instructional and mastery level readers. Journal of Educational Research, 83, 220-226.
* Therrien, W.J. (2004). Fluency and comprehension gains as a result of repeated reading: A meta-analysis. Remedial and Special Education. 25(4) 252-261.
* Morrow, L. M. (1985). Retelling stories: A strategy for improving young children’s comprehension, concept of story structure, and oral language complexity. The Elementary School Journal, 85, 646–661.

**Duet Reading**

* Aulls, M.W., (1982). Developing Readers in Today’s Elementary Schools. Allyn & Bacon: Boston.
* Blevins, W. (2001). Building Fluency: Lessons and Strategies for Reading Success. New York: Scholastic Professional Books.
* Dowhower, S.L. (1991). Speaking of prosody: Fluency’s unattended bedfellow. Theory into Practice, 30 (3), 165-175.
* Mathes, P.G., Simmons, D.C., & Davis, B.I. (1992). Assisted reading techniques for developing reading fluency. Reading Research and Instruction, 31, 70-77.
* Weinstein, G., & Cooke, N. L. (1992). The effects of two repeated reading interventions on generalization of ﬂuency. *Learning Disability Quarterly*, *15,* 21–27.

**Newscaster Reading**

* Armbruster, B.B., Lehr, F., & Osborn, J. (2001). Put reading first: The research building blocks for teaching children to read. Washington, DC: US Department of Education, National Institute for Literacy.
* Dowhower. S.L. (1987). Effects of repeated reading on second-grade transitional readers’ fluency and comprehension. Reading Research Quarterly. 22, 389-406. (listening to a tape)
* Heckelman, R.G. (1969). A neurological-impress method of remedial reading instruction. Academic Therapy, 4, 277-282.
* Daly, E. J., III, & Martens, B. (1994). A comparison of three interventions for increasing oral reading performance: Application of the instructional hierarchy. Journal of Applied Behavior Analysis, 29, 507–518.
* Skinner, C. H., Adamson, K. L., Woodward, J. R., Jackson, R. R., Atchison, L. A., & Mims, J. W. (1993). The effects of models’ rates of reading on students’ reading during listening previewing. Journal of Learning Disabilities, 26, 674–681.
* Rasinski, T.V. (2003). The fluent reader: Reading strategies for building word recognition, fluency, and comprehension. New York, NY: Scholastic Professional Books.
* Searfoss, L. (1975). Radio Reading. The Reading Teacher, 29, 295-296.
* Stahl S. (2004). What do we Know About Fluency?: Findings of the National Reading Panel. In McCardle, P., & Chhabra, V. (Eds) The Voice of Evidence in Reading Research. Brookes: AU.

**Stop Go**

* Blevins, W. (2001). Building Fluency: Lessons and Strategies for Reading Success. New York: Scholastic Professional Books.
* Rasinski, T., & Padak, N. (1994). Effects of fluency development on urban second-graders. Jorunal of Education Research, 87**.**
* Rasinski, T.V. (2003). The fluent reader: Reading strategies for building word recognition, fluency, and comprehension. New York, NY: Scholastic Professional Books.

**Pencil Tap**

* Hattie, J., & Timperley, H. (2007). The power of feedback. Review of Education Research. 77(1), 81-112.
* Howell, K., W., & Nolet. V., (2000). Curriculum-Based Evaluation: Teaching and Decision Making 3rd Ed. Belmont, CA: Wadsworth.
* Lysakowski, R.S., & Walberg, H.J. (1982). Instructional effects of cues, participation, and corrective feedback: A quantitative synthesis. American Educational Research Journal Vol 19(4), 559-578.
* Tenenbaum, G., & Goldring, E. (1989). A meta-analysis fo the effecta of enhanced instruction: Cues, participation, reinforcement and feedback and correctives on motor skill learning. Journal of Research & Development in Education. Vol 22(3) 53-64.

**Word Blending**

* Adams, M.J. (2001).Alphabetic anxiety and explicit, systematic phonics instruction: A cognitive science perspective. In S.B. Neuman & D.K. Dickinson (eds.), Handbook of Early Literacy Research (pp. 66-80). New York: Guilford Press.
* Goswami, U. (2000). Causal connections in beginning reading: The importance of rhyme. Journal or Research in Reading, 22(3) 217-240.
* Greaney, K.T., Tunmer, W.E., & Chapman, J.W., (1997). Journal of Educational Psychology, 89(4) 645-651.

**Letter Sound Identification**

* Adams, M.J. (1990). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.
* Adams, M.J. (2001).Alphabetic anxiety and explicit, systematic phonics instruction: A cognitive science perspective. In S.B. Neuman & D.K. Dickinson (eds.), Handbook of Early Literacy Research (pp. 66-80). New York: Guilford Press.
* Chard, D.J., & Osborn, J. (1999). Word Recognition: Paving the road to successful reading. Intervention in school and clinic, 34(5), 271-277.

**Phonological Awareness Interventions**

* Bus, A. G., & van IJzendoorn, M. H. (1999). Phonological awareness and early reading: A meta-analysis of experimental training studies. Journal of Educational Psychology, 91(3), 403.
* Hatcher, P. J., & Hulme, C. (1999). Phonemes, rhymes, and intelligence as predictors of children's responsiveness to remedial reading instruction: Evidence from a longitudinal intervention study. Journal of experimental child psychology, 72(2), 130-153.

Phoneme Blending

* Adams, M.J. (1990). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.
* Bos, C.D., & Vaughn, S. (2002). Strategies for teaching students with learning and behavioral problems (5th Ed.). Boston: Allyn & Bacon.
* Ehri, L.C., Nunees, S.R., & Willows, D.M. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel’s meta-analysis. Reading Research Quarterly, 36(3). 250-287.
* Elkonin, D.B. (1973). U.S.S.R. In J. Downing (Ed.), Comparative Reading (pp.551-579). New York: MacMillan.
* National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Bethesda, MA: National Institutes of Health.
* Santi, K.L., Menchetti, B.M., & Edwards, B.J. (2004). A comparison of eight kindergarten phonemic awareness programs based on empirically validated instructional principals. Remedial and Special Education, Vol 25(3) 189-196.
* Smith, C.R. (1998). From gibberish to phonemic awareness: Effective decoding instruction. Exceptional Children, Vol 30(6) 20-25.
* Smith, S.B., Simmons, D.C., & Kame’enui, E, J. (1998). Phonological Awareness: Research bases. In D.C. Simmons & E.J. Kame’enui (Eds.), What Reading research tells us about children with diverse learning needs: Bases and basics. Mahwah, NJ: Lawrence Erlbaum Associates.
* Snider, V. E. (1995). A primer on phonemic awareness: What it is, why it is important, and how to teach it. *School Psychology Review*, *24,* 443–455.

Phoneme Segmentation

* Adams, M.J. (1990). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.
* Blachman, B. A. (1991). Early intervention for children’s reading problems: Clinical applications of the research on phonological awareness. *Topics in Language Disorders*, *12,* 51–65.
* Bos, C.D., & Vaughn, S. (2002). Strategies for teaching students with learning and behavioral problems (5th Ed.). Boston: Allyn & Bacon.
* Ehri, L.C., Nunees, S.R., & Willows, D.M. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel’s meta-analysis. Reading Research Quarterly, 36(3). 250-287.
* National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Bethesda, MA: National Institutes of Health.
* Santi, K.L., Menchetti, B.M., & Edwards, B.J. (2004). A comparison of eight kindergarten phonemic awareness programs based on empirically validated instructional principals. Remedial and Special Education, Vol 25(3) 189-196.
* Smith, C.R. (1998). From gibberish to phonemic awareness: Effective decoding instruction. Exceptional Children Vol 30(6) 20-25.
* Smith, S.B., Simmons, D.C., & Kame’enui, E, J. (1998). Phonological Awareness: Research bases. In D.C. Simmons & E.J. Kame’enui (Eds.), What Reading research tells us about children with diverse learning needs: Bases and basics. Mahwah, NJ: Lawrence Erlbaum Associates.
* Snider, V. E. (1995). A primer on phonemic awareness: What it is, why it is important, and how to teach it. *School Psychology Review*, *24,* 443–455.