The Power of Direct Instruction

Direct Instruction is an explicit, intensive, teacher-directed instructional method that is based on two basic principles:

• All children can learn when taught efficiently, regardless of their learning history

• All teachers can be successful, given effective teaching materials and presentation techniques

Numerous well-respected research studies conducted across four decades show that when Direct Instruction is implemented with fidelity, these principles can be applied successfully in any school, in any classroom.

This highly effective approach offers an unparalleled level of explicit instruction, intensity, and support to accelerate learning and prevent academic failure. Thousands of teachers nationwide use direct instruction programs to make measurable differences in student confidence and academic achievement.

Research shows that explicit, individualized, and validated instruction—like that offered by Direct Instruction programs—is key for optimal learning opportunities.

Direct Instruction programs are:

• Validated by extensive and exhaustive research

• Proven to work in a wide range of classrooms, schools, and districts

• Systematic, explicit instruction for heightened academic achievement

Learn how Direct Instruction teaching practices have positively impacted students around the country.
Between the fall of 2015 and spring of 2016, McGraw-Hill Education conducted a research study at three elementary schools within the Columbus Municipal School District in Columbus, Mississippi.

The study was designed to investigate the associated effects of the direct instruction program, Reading Mastery® Signature Edition, on K–2 student achievement as measured by Measures of Academic Progress® (MAP) and Star Reading Assessment by Renaissance® (STAR) scores.

This report offers a comprehensive overview of the Columbus, Mississippi research study and offers a summary of its results with possible implications.
PART I: Addressing an Achievement Gap with Direct Instruction

Overview

The Columbus Municipal School District, located in Columbus, Mississippi, was facing an educational crisis. The district’s youngest students were not being prepared with the foundational skills they needed to progress, and year on year the achievement gap was widening for the district’s K–12 students.

District leaders decided to implement Reading Mastery Signature Edition in all schools. Simultaneously, they chose to participate in a targeted study designed to measure the impact of teaching Reading Mastery Signature Edition.

The Challenge

When Superintendent Dr. Philip W.V. Hickman joined the Columbus Municipal School District several years ago, he noticed a disturbing trend within the schools. The district’s K–2 teachers were all teaching foundational skills differently, and the variances made it difficult to assess gaps in student learning. As the variances between classrooms and between grades increased, so did the district’s achievement gap.

“All of our first-grade teachers were teaching reading differently. When their students reached second grade, they were then mixed in with children who had been taught in other ways, and they all had holes in their learning,” said Hickman. “The longer a child was in our program, the farther behind they became. By middle school, none of our kids were reading at grade level. Something had to change.”

Research Design

In addition to inconsistent teaching methods, the district also faced a teacher shortage. Underperforming teachers were moved around so often that they went largely undetected.

Hickman knew that what they needed was a scripted, Direct Instruction curriculum that explicitly defined the content that was to be taught district-wide. The district chose Reading Mastery Signature Edition and implemented it as a core offering for all students rather than as an intervention strategy.

“There are non-negotiable skills that all children need in order to build a foundation that will last,” explained Hickman.

Why Reading Mastery Signature Edition?

Reading Mastery Signature Edition is a Direct Instruction program that offers a comprehensive reading curriculum for grades K–5. SRA Reading Mastery Signature Edition provides carefully designed, integrated instruction that focuses on phonemic awareness, provides practice in developing fluency and vocabulary, builds comprehension strategies and skills, and offers practice reading connected text.

Numerous research studies have found that well-designed, focused reading programs such as Reading Mastery Signature Edition can lead to replicable, positive results. Reading Mastery Signature Edition was well-suited to address the challenges faced by the Columbus Municipal School District because its explicit, intensive, consistent, and interactive nature emphasizes content, minimizes off-task behavior, and ensures mastery.

All of our first-grade teachers were teaching reading differently. When their students reached second grade, they were then mixed in with children who had been taught in other ways, and they all had holes in their learning.”

Dr. Philip W.V. Hickman, Superintendent, Columbus Municipal School District
Part II: Study Structure and Research Design

Overview

The McGraw-Hill Education study is designed around the broad question: “What are the associated effects of Reading Mastery Signature Edition on K–2 student achievement?”

The study was structured to answer that question by narrowing the focus to one school district in Columbus, Mississippi, and focusing in on just three elementary schools within the district. After operationalizing the study by implementing Reading Mastery Signature Edition in K–2 classrooms within those schools, the study then analyzed the results to reach a conclusion.

Participants and Demographics

Participants included 613 students in 29 classrooms. Participating students were divided approximately evenly between the three schools (labeled A–C in this study) and approximately evenly between grades kindergarten, first, and second.

Student Demographics

• 92 percent African American
• 55 percent boys, 45 percent girls
• 12 percent special education
• One percent ESL
• All students eligible to receive free/reduced lunch

Program Implementation

All staff participated in professional development led by consultants that focused on content-specific learning and teaching models to encourage active engagement and collaboration among peers as well as practical application. Every six to eight weeks, consultants conducted classroom observations, performed modeling and coaching, and met with the teachers to offer feedback and guidance.

Students in grades K–2 received ninety minutes of Reading Mastery Signature Edition instruction daily. They participated in frequent, ongoing formal and informal assessments including in-program mastery tests and fluency check-outs to monitor progress, adjust instruction, and maintain appropriate placement in homogeneous groups.

In some schools, implementation met with resistance until we started making leeway after the first assessment. The scripted program was a total mind shift from what they had been doing.

Pamela Lenoir,
Assistant Superintendent of Federal and Special Programs,
Columbus Municipal School District

Student Performance Measures

Northwest Evaluation Association (NWEA)
Measures of Academic Progress (MAP)

• Scores range from 100 to 300
• Scores are vertically-scaled
• Reported norms reflect the 2015 normative study
• Fall: administered end of August
• Spring: administered end of March*

(Note: Spring norms in the 2015 normative study reflect May administration)

STAR Early Literacy and STAR Reading

• Kindergarten and first grade administered STAR Early Literacy (range 300–900) which assessed phonemic awareness, phonics, structural analysis, vocabulary, and sentence-level comprehension.
• Second grade administered STAR Reading (range 0–1400) which assessed word knowledge and skills along with comprehension strategies.
Part III: Study Results

Overview

Overall evidence from assessments indicates that students using SRA Reading Mastery Signature Edition showed growth, especially at the lower grade levels.

Student Performance: MAP Results

There was a statistically significant difference in student scores between the fall and spring 2016 administration of the MAP.

<table>
<thead>
<tr>
<th>Grade</th>
<th>n</th>
<th>Fall Mean</th>
<th>Fall SD</th>
<th>Spring Mean</th>
<th>Spring SD</th>
<th>Gain Mean</th>
<th>Gain SD</th>
<th>Effect Size** d</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>159</td>
<td>136.35</td>
<td>9.68</td>
<td>151.44</td>
<td>12.38</td>
<td>15.09*</td>
<td>10.14</td>
<td>1.48</td>
</tr>
<tr>
<td>1</td>
<td>183</td>
<td>153.75</td>
<td>10.28</td>
<td>166.93</td>
<td>12.49</td>
<td>13.18*</td>
<td>8.92</td>
<td>1.55</td>
</tr>
<tr>
<td>2</td>
<td>214</td>
<td>166.80</td>
<td>13.16</td>
<td>179.45</td>
<td>13.04</td>
<td>12.65*</td>
<td>10.70</td>
<td>1.18</td>
</tr>
<tr>
<td>All Students</td>
<td>556</td>
<td>122.02</td>
<td>16.74</td>
<td>167.32</td>
<td>16.66</td>
<td>15.96*</td>
<td>10.02</td>
<td>1.59</td>
</tr>
</tbody>
</table>

*Statistically significant, p < .01  **Computed using Cohen’s d

MAP gain scores were greater in the lower grades, which aligns with expectations. Rausch Unit (RIT) scores tend to increase over time. When intervention is offered at lower grade levels, students often have a more pronounced increase in RIT scores during the school year than students in higher grades. At higher grade levels, test questions become more difficult or complicated, and a student’s overall growth represents a smaller proportion of everything the student now knows. These predicted growth rates are based on national norms and should be viewed as exemplary, but not expected.

Mean MAP RIT Yearly Gain Scores

<table>
<thead>
<tr>
<th>Grade</th>
<th>n</th>
<th>School A Gain</th>
<th>n</th>
<th>School B Gain</th>
<th>n</th>
<th>School C Gain</th>
<th>n</th>
<th>All Schools</th>
<th>NWEA Growth Expectation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>47</td>
<td>16.90</td>
<td>54</td>
<td>14.62</td>
<td>58</td>
<td>14.06</td>
<td>159</td>
<td>15.09</td>
<td>17.1</td>
</tr>
<tr>
<td>1</td>
<td>58</td>
<td>14.60</td>
<td>64</td>
<td>14.89</td>
<td>68</td>
<td>10.03</td>
<td>183</td>
<td>13.18</td>
<td>16.8</td>
</tr>
<tr>
<td>2</td>
<td>55</td>
<td>14.49</td>
<td>68</td>
<td>14.07</td>
<td>91</td>
<td>10.48</td>
<td>214</td>
<td>12.65</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>160</td>
<td>15.24</td>
<td>186</td>
<td>14.51</td>
<td>210</td>
<td>11.34</td>
<td>556</td>
<td>13.53</td>
<td>15.96**</td>
</tr>
</tbody>
</table>

*Growth norms reported from the NWEA 2015 Rausch Unit (RIT) Scale Norms Study  **Averaged from growth norm values for kindergarten, first grade, and second grade

The majority of students showed MAP gains.
1. Between 49 percent and 35 percent of students met or exceeded the NWEA growth expectations for the MAP

Percentage of Students Meeting or Exceeding NWEA Growth Expectation*

<table>
<thead>
<tr>
<th>Grade</th>
<th>n</th>
<th>School A %</th>
<th>n</th>
<th>School B %</th>
<th>n</th>
<th>School C %</th>
<th>All Schools %</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>25</td>
<td>53.2</td>
<td>22</td>
<td>40.7</td>
<td>25</td>
<td>43.1</td>
<td>72</td>
</tr>
<tr>
<td>1</td>
<td>24</td>
<td>41.4</td>
<td>33</td>
<td>51.6</td>
<td>16</td>
<td>26.2</td>
<td>73</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>45.5</td>
<td>36</td>
<td>52.9</td>
<td>33</td>
<td>36.3</td>
<td>94</td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>46.2</td>
<td>91</td>
<td>48.9</td>
<td>74</td>
<td>35.2</td>
<td>239</td>
</tr>
</tbody>
</table>

*Growth norms reported from the NWEA 2015 RIT Scale Norms Study

Of those students who met or exceeded the NWEA growth expectations for the MAP, the average gain was 20 MAP points across all grades.

Actual and Expected Growth For Students Meeting NWEA Growth Expectation

Of those students who met or exceeded the NWEA growth expectations for the MAP, the average gain was 20 MAP points across all grades.

2. Over a two-year period (2014–2016) MAP scores also changed significantly.

Mean MAP Score
Student Performance: STAR Results

1. There was a statistically significant difference in student scores between the fall and spring administration of the STAR Assessment.

<table>
<thead>
<tr>
<th>Grade 2016</th>
<th>n</th>
<th>Year 1 Gain</th>
<th>Year 2 Gain</th>
<th>Total Gain</th>
<th>Difference Significant?</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>166</td>
<td>9.60</td>
<td>13.10</td>
<td>22.70</td>
<td>Yes</td>
<td>.003</td>
</tr>
<tr>
<td>2</td>
<td>199</td>
<td>5.36</td>
<td>12.81</td>
<td>18.17</td>
<td>Yes</td>
<td>.000</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
<td>7.29</td>
<td>12.94</td>
<td>20.23</td>
<td>Yes</td>
<td>.000</td>
</tr>
</tbody>
</table>

   Mean Fall, Spring, and Gain MAP Score, by Grade Level

2. STAR gain scores were greater in the lower grades, which aligns with expectations. RIT scores tend to increase over time. When intervention is offered at lower grade levels, students often have a more pronounced increase in RIT scores during the school year than students in higher grades. At higher grade levels, test questions become more difficult or complicated, and a student’s overall growth represents a smaller proportion of everything the student now knows. These predicted growth rates are based on national norms and should be viewed as exemplary, but not expected.

<table>
<thead>
<tr>
<th>Grade</th>
<th>n</th>
<th>Fall Mean</th>
<th>Fall SD</th>
<th>Spring Mean</th>
<th>Spring SD</th>
<th>Gain Mean</th>
<th>Gain SD</th>
<th>Effect Size** d</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>166</td>
<td>475.50</td>
<td>91.87</td>
<td>652.88</td>
<td>111.69</td>
<td>177.38*</td>
<td>87.55</td>
<td>2.02</td>
</tr>
<tr>
<td>1</td>
<td>179</td>
<td>589.18</td>
<td>93.54</td>
<td>742.28</td>
<td>81.33</td>
<td>153.10*</td>
<td>83.21</td>
<td>1.83</td>
</tr>
<tr>
<td>2</td>
<td>216</td>
<td>158.37</td>
<td>93.84</td>
<td>263.77</td>
<td>106.59</td>
<td>106.59*</td>
<td>70.14</td>
<td>1.50</td>
</tr>
</tbody>
</table>

   *Statistically significant, p < .01      **Computed using Cohen’s d

3. Students demonstrated progress against the STAR literacy classifications

   Distribution of Students on STAR by Literacy Classification

<table>
<thead>
<tr>
<th>Grade</th>
<th>Classification</th>
<th>Fall STAR</th>
<th>Spring STAR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percentile</td>
<td>n</td>
</tr>
<tr>
<td>K</td>
<td>Early Emergent Reader</td>
<td>101</td>
<td>60.8</td>
</tr>
<tr>
<td></td>
<td>Late Emergent Reader</td>
<td>62</td>
<td>37.3</td>
</tr>
<tr>
<td></td>
<td>Transitional Reader</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Probable Reader</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>1</td>
<td>Early Emergent Reader</td>
<td>26</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td>Late Emergent Reader</td>
<td>119</td>
<td>66.5</td>
</tr>
<tr>
<td></td>
<td>Transitional Reader</td>
<td>29</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>Probable Reader</td>
<td>5</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Summary of Findings:

Impact on Test Scores

During this study, students made significant gains in their respective MAP and STAR scores from fall to spring. In line with expectations, younger students made greater gains than older students.

- NWEA MAP: Overall 43 percent of students met or exceeded the NWEA growth expectation after participating in Reading Mastery Signature Edition for one year. Of these, kindergarten students increased their score by 28 units; first-graders by 25 units; while second graders increased their score by 20 MAP units.

- STAR: Kindergarten and first-grade students exceeded the STAR growth expectation and additionally increased their relative standing to peers by 10 percentile units in the case of kindergarten, and five percentile units in the case of first grade.

Part IV: District Response

Observations

Superintendent Dr. Philip W.V. Hickman was happy with the progress that teachers and students of the Columbus District had made using Reading Mastery Signature Edition. He said, “Reading Mastery filled in holes with consistent foundational skills that can’t be rocked. Because the curriculum is scripted, teaching critical skills can’t be ignored or impacted by the teacher’s preference or skill level.”

Mrs. Kimberly Blunt, Principal at Sales Elementary, agreed. “Reading Mastery has improved our teaching styles, and it’s clear we get better results from more fidelity,” she said. “Now we know when to fast-track a child or when to slow down and go back. We are able to adjust to how a student is progressing, and we can still challenge them if they are at level.”

Plans for the Future

When Hickman first arrived in the Columbus Municipal School District, his own son was in the first grade, and quickly falling behind. “My own son was scoring below grade level,” said Hickman. “I was afraid for him to keep learning in our traditional system. Now he is in third grade and asking for chapter books.”

Hickman was glad he chose to roll out Reading Mastery Signature Edition district-wide rather than doing a pilot because there was no time to waste. “We will continue to use Reading Mastery because it works. We can’t have evidence that a program works and still waste time debating whether to use it,” he said. “My advice is start as soon as possible. Don’t delay. Children have a small window for learning foundational skills, and we have to get it right.”
Charter School Celebrates 20 Years of Direct Instruction Partnership

CASE STUDY

Overview

The Verona Area Core Knowledge Charter School (CKCS) is a public school option in Verona, Wisconsin. Verona is located approximately 10 miles south of Madison, the state capital and home of the University of Wisconsin’s flagship campus.

Verona CKCS is not the district’s only charter school but, according to director Rick Kisting, it is the only K–8 program. The school currently has two classes per grade and a total of 420 students.
“We want to grow and enroll more students,” said Annita Wozniak, a CKCS parent, and president of the school’s governing council. “But right now... right now the district does not have the space, so that caps our enrollment.”

CKCS will celebrate its 20th anniversary on January 16, 2016. Moreover, according to Chris Uelmen, the school’s grade K–8 curriculum coordinator and Direct Instruction coach, “Of the 12 grade K–5 teachers currently working here, nine have been using DI for more than 10 years, and five of those are 20-year veterans of both the school and DI.”

Kelli Kreienkamp, one of the school’s original founders and a CKCS second-grade teacher for the past 15 years remembered, “We [the founders] chose Direct Instruction because it was research based. We thought it was important to go with a learning system that had solid research behind it. Something that was not just anecdotal.” Kreienkamp had been a private had been a private tutor using DI before the founding of CKCS and had seen what she calls “amazing success” with students at all grade levels.

CKCS integrates effective traditional and contemporary teaching methods to create a dynamic learning environment for all students. The school uses the Core Knowledge learning sequence for content, a detailed and systematic curriculum content guide for each grade level that can be taught consistently year after year. CKCS also employs a number of McGraw-Hill Education Direct Instruction programs, including SRA Connecting Math Concepts®, Reading Master® Signature Edition, and Corrective Reading®. The school’s website notes, “Direct Instruction used in K–5 reading, spelling, written language, and math go hand-in-hand with the Core Knowledge sequence.”

There is a waiting list to get into CKCS because of its well-known excellence and proven results. During the 2013–2014 school year, the school had higher percentages of students in grades three through eight scoring “proficient plus advanced” in reading than either the district or the state of Wisconsin.

Teaching All Students to Mastery

According to Uelmen, all K–5 classes at Verona CKCS teach Direct Instruction for reading and math at the same time. “This allows us to assess the students and group them into flexible instructional groups across grade levels according to their individual skills and level of mastery,” she said. “The students are carefully monitored, by their teacher and by me. The built-in program assessments and day-to-day feedback provide valuable information about student learning and lets us know if students are at mastery or not. Based on what we see, children can move up or down in instructional groups, if that is what is necessary—depending on their week-to-week performance.”

Director of CKCS, Rick Kisting, knows the importance of having teachers who are well-versed and trained in Direct Instruction. “That’s Chris’s job as our curriculum coordinator and DI guru,” he said. “She does a great job of working with staff, working with new staff as they come in, to make sure they’re adequately trained and continually updated. Her position is invaluable to the program and its success.”

“Our specific goals for this year include focusing on students who are really struggling at the lower end in terms of our reading and math data, which we currently use as our metrics. Direct Instruction is just one part of that process, but it’s a huge part,” said Kisting.
Continuous Improvement with DI

Although the CKCS teachers have been using DI for anywhere from five-to-20 years, implementation is ongoing.

“One of our main goals has always been to maintain the DI program’s integrity because it works so well,” said Wozniak. “Every year we are focused on ongoing implementation and protecting the fidelity of the program, the proper coaching of our teachers, the continuous review of the data we’re collecting on a daily basis, and the results we’re seeing that allow us to continue enrolling. We want to grow and offer more and more children the opportunity to do well in both elementary and middle school.”

Kreienkamp agreed. “Again, the most important thing about DI is having highly qualified teachers. DI is only effective when teachers are really trained to use it to its fullest. At our school, that is priority number one.”

“Teachers are trained,” said Uelmen, “but it’s that onsite, ongoing coaching that makes sure things are going well, and teachers have the support they need.”

According to Uelmen, this ongoing support pays off. “When you put that script into the hands of a highly skilled teacher trained in DI, it comes alive,” She said. “Just as an actor on stage with a script can make a play come alive.”

Analytics Prove Effectiveness and Success

The teachers who have been using DI for years are very supportive of the program. So are the students. Bridget Baxter, CKCS elementary resource teacher, is also a former student who was taught with Direct Instruction. She said, “My strongest memory of being a DI student is a sense of belonging. Having personalized groups based on students’ abilities really made me feel like each teacher genuinely cared about my learning. I knew that even though math wasn’t my strongest subject, I would be in a ‘just-right’ group that was going to help me improve. I feel that the Direct Instruction program really sets students up for success.”

“I feel that the Direct Instruction program really sets students up for success.”

Bridget Baxter, CKCS Elementary Resource Teacher and former DI student

“They love Direct Instruction,” said Kreienkamp of her second-grade students. “It is fast-paced and keeps them really engaged. And when they find out the things they’re learning about, they say things like, ‘This is really easy.’ I tell them, ‘These are things middle school students do,’ so they get really excited. There is nothing about it that I do not like. I think that it has worked well with every child who has walked through this school because they are being taught at their instructional level rather than their grade level.”

Chris Uelmen, CKCS K–8 Curriculum Coordinator and DI Coach
Kreienkamp’s enthusiasm is supported by the 2012–2013 school year Measures of Academic Progress (MAP) test results. For grades three through eight, the average percentage of students demonstrating proficiency in reading was 73 percent, while an average of 81 percent displayed proficiency in mathematics.

Stanford Achievement Test -10 (SAT-10) results have consistently shown significant growth for CKCS students at the end of first grade when compared to their kindergarten entry-level or baseline scores. The chart below represents SAT-10 results from a cohort of first grade students in spring 2014 as compared to their entry level scores in fall 2012.

“Our school was started by a contract with the district that identified DI as our core instructional program,” Kreienkamp said, “So we have had full-scale implementation of Direct Instruction for almost two full decades. We have seen excellent results since the very first year.”
CASE STUDY

Arizona School Uses Direct Instruction to Prepare Students for Upper Grades

ABOUT THE DISTRICT

Name
Cartwright School District
Location
Maryvale, Arizona
Grades
K–8

Overview

Cartwright School District serves the Maryvale, Arizona, community and has a long history of providing educational excellence for students in grades K–8. Its highly qualified team of educators serves more than 19,000 students in a total of 20 schools.

The Cartwright School District strives to advance college and career readiness for all its students, but this is especially challenging given that 90 percent of the students are on free or reduced-price lunch and 40 percent are English language learners.

TOTAL ENROLLMENT: 19,000
Implementation

Shelby Jasmer, Ed.D., a top district administrator at Cartwright, began evaluating literacy and math intervention programs in 2012. Jasmer, a 25-year education veteran, serves as the director of Response to Intervention (RTI) and accountability. Her interest and expertise in educational assessment led her to investigate research-validated programs that had a strong RTI framework. She and the RTI steering committee looked at programs that deliver systematic Tier 2 and Tier 3 interventions.

The initial goal was to get older students up to grade level by providing strong remediation in reading and mathematics. The district initially chose Corrective Reading® and Corrective Mathematics for grades 3–12. “We chose programs based on not only their research validation but also on the strong support we would receive directly from McGraw-Hill Education,” said Jasmer.

Before the district adopted Direct Instruction, it didn’t have a way to close wide gaps and teach remedial skills. “As many as one-third of our grade eight students lacked knowledge of such topics as proportional reasoning; they simply didn’t have the basic skills required for math,” said Jasmer. Teachers lacked the time and knowledge to bring children who were two or three grades behind up to grade level.

Reaction

The Cartwright School District began implementing Direct Instruction on a small scale, starting at the resource-room level. Then they extended the programs to grades 4 and 5. Over time, as students received diagnostic screening, they were matched to the intervention levels they needed.

“When you meet students where they are and provide effective delivery, then everybody learns and succeeds,” said Jasmer. The district has eased the initial apprehension some teachers felt about the new intervention programs.

Jasmer explained, saying, “For teachers, it’s really great because of the student success, and it’s motivating. The teachers are more confident in sharing their kids, in regrouping kids, and we’re all committed to meeting kids where they’re at. Now we don’t need to wait for underperforming students to fail. We can support them by saying, ‘We have already planned for you, and we can support you.’ The teachers find it very motivating, and it helps reduce student behavior problems.”

“Simply asking teachers to work harder and provide intervention does not work. You need a system that is built specifically for intensive intervention and supported both at the school level and by the administration,” Jasmer said. “Our leadership group created the vision for where we were going and a solid plan for how we were going to get there. Our principals and district leaders support the teachers from the top down so we can deliver success.”

According to Jasmer, initial and ongoing professional development is the key to success. After their initial training, most teachers attended intermediate classes to refine their delivery and then received advanced training from McGraw-Hill Education professionals and external consultants. Teachers also attended DI conferences organized by the National Institute for Direct Instruction (NIFDI) and McGraw-Hill Education.
Results

The Cartwright School District sees many struggling learners. Fortunately, it now has new structures in place to accommodate them. Middle school students who struggled before are now able to do division in their “Math Club” classes. Some even volunteer to assist when a substitute teacher is present.

“They just never thought they could do math, ever—but now they can,” said Jasmer. “As we see kids getting better at reading and math, it’s very motivating for both the students and the teachers. Cartwright District is implementing another math program from McGraw-Hill Education, *SRA Connecting Math Concepts*®, and the teachers feel they can really focus on teaching and not spend precious time on curriculum development.” Teacher can sequence the content so students get the repetition they need to build skills. According to Jasmer, teachers find this very liberating. They also feel much more confident that they are being effective.

Scores in the district have markedly improved. “Based on the AIMSweb Summary of Impact report, our Tier 3 student results are in the top quartile well over 50 percent of the time. In Tier 1, they are nearly all in the bottom quartile, and in Tier 2, in the middle. But student progress, including kids in the DI program, is in the top quartile,” said Jasmer. From fall to winter, Cartwright saw many Tier 2 students move into Tier 1.
Parents have noticed, too, and according to Jasmer they trust sending their kids to the Direct Instruction teachers. At Individual Education Plan (IEP) meetings and in letters to the principal, they express their excitement about their children’s reading and math progress.

The Future

College and career preparation is top of the list at Cartwright. That doesn’t just mean helping students meet state standards. It also means teaching them to be solid readers—creating the ability to read texts for lengthy periods of time.

Jasmer noted that, “The Direct Instruction programs build that ability for all kids. When teachers just use reading programs from the Internet, it’s not sequential enough. Becoming a strong reader is critical because each student needs to be ready to pass their freshman classes.” Cartwright is counting on Direct Instruction programs to help reduce the current dropout rate at the high school level, which is around 50 percent.
Riverton Middle School Supports Core and More with Direct Instruction

Overview

Riverton Middle School serves approximately 2,500 students from the Riverton, Wyoming, area. The school, which borders the Wind River Indian Reservation, has a diverse student population, with 45 to 50 percent of sixth, seventh and eighth graders eligible for free or reduced-price lunch. Academically, low reading scores were the norm and special education was the only remediation option. Searching for an alternative to address their Response to Intervention (RTI) cases outside of special education, Riverton implemented Corrective Reading® and Read to Achieve.

Corrective Reading provides level-set instruction in decoding and comprehension. Read to Achieve increases reading comprehension in content-rich classes such as social studies and science. Together, these programs help Riverton educators narrow their students’ achievement gap.

TOTAL ENROLLMENT: 2,500
Implementation

Six years ago, Riverton Middle School was concerned about its low testing scores and knew it was time to do something different. A possible solution for improving their test scores was presented during a meeting between Cheryl Mowry, the middle school principal, and Wayne Callender, a nationally recognized consultant on implementing school-wide approaches to Response to Intervention (RTI).

“We attended an RTI workshop for the state of Wyoming, and Wayne Callender was there,” said Mowry. “He showed us the data on Direct Instruction to prove that it works.”

Callender’s insight convinced Mowry and other administrators that Direct Instruction could support a more effective RTI model in their school, and they were anxious to implement it.

With limited funds, they introduced Direct Instruction by borrowing materials from other schools. A grant from the district soon followed, allowing them to purchase Corrective Reading and Read to Achieve. When the grant money was exhausted, positive results from the programs convinced administrators to continue funding Riverton’s RTI transformation.

“Direct Instruction allows us to target the right kids with the right programs and the right teachers,” said core ELA teacher Toi Porter. “That has been our biggest success.”

Sue Gosnell, a Corrective Reading level C teacher, recalls feeling clumsy with the program when she first used it. Now, six years in, she can’t imagine teaching without it.

“Our entire remediation program now identifies reading needs and addresses deficits, so when kids walk out, they have the skills to be successful. You can’t ask for more than that.”

Sue Gosnell, Corrective Reading Teacher, Riverton Middle School

Student Focus

Combining Corrective Reading and Read to Achieve has given educators at Riverton Middle School the tools they need to support reading at every level in every classroom, including content-rich classes.

“We use Read to Achieve when students are struggling in classes like social studies and science,” said Porter. “Sometimes students ask, ‘Why am I here? I’m a good reader.’ The problem may be that they read too fast, so they aren’t reading accurately, or they read so slowly that they can’t remember what they read. Read to Achieve addresses those comprehension issues because it has close reading built in.”

Riverton teachers and administrators believe their special education focus can help them can avoid the stigma of some schools because any student can be pulled in for extra reading instruction at any time. Their strategy is to always know where students are, address issues as they arise, and work hard to move students forward.

Teachers support the program by spending the last half-hour of every day with students who need additional reading instruction. And if any teacher believes a student is struggling, he or she can simply recommend that child be placed for help.
Helen Sivret was viewed as Riverton’s Corrective Reading guru by teachers and administrators, believes the programs allow teachers to focus on more enrichment and less on remediation. According to Sivret, “We don’t have as many Special Ed referrals as we did before because we have more than one way to address reading issues.”

Mowry noted that changing their approach to RTI improves students attitudes about learning. “The kids feel more confident. Students who would never read in class have begun to volunteer,” she said. “I’ve also noticed increased attendance and decreased behavioral issues since we’ve implemented the programs.”

Results

“Six years ago we didn’t have an option to help with reading skills beyond Special Ed,” said Mowry. “Now we have two classes, core and more, that students must test out to move on. Before, our below-basic kids were not showing growth. Now, our state test results show below-basic kids have risen to the basic level. We’ve never done that before.”

The 2014–2015 school year offers a glimpse of Riverton’s Direct Instruction success. The data shows all intensive students in grades six, seven, and eight performing twice as well as expected. In addition, 2016 Measures of Academic Progress (MAP) testing results of nine students in their Corrective Reading classroom show a 78 percent increase in their total reading score from the fall to the spring, with an average growth of 7.9 RIT (Rasch UnIT) points. Sixty-seven percent also met or exceeded their target RIT growth and raised their percentile ranking by an average of 27 percentile points.

Math scores were also improved and Mowry believed that Direct Instruction was a factor. “Math students needed remediation for reading, but the math teachers weren’t trained to provide it,” she said. “Now, we’re able to provide more complete programs for learning. I can’t say every child improved, but we have seen consistently positive trend lines. Four-to-five years of positive data is impressive at any middle school.”

The Future

Sivret is a proponent of implementing the RTI programs in every grade. “Reading intervention is not just an elementary thing,” she said. “It can help meet any student where they are and help move them forward.”

Instructional coach Cathleen Galitz agrees and believes it is all about having the right data. Galitz and other counselors test every child entering Riverton Middle School to understand where he or she needs to be placed.
“We make sure the kids are in the right program, and then we make adjustments. We love, love, love the data Corrective Reading gives us and how we can make sense of that data using the SRA 2Inform® online progress-monitoring system,” she said. “Our goal as a district is to continue to combine skills with placement to create a success pathway.”

Sivret agreed, adding, “If you fail at our middle school, you have to work hard at it. We have a program to help every child.”

“If you fail at our middle school, you have to work hard at it. We have a program to help every child.

Helen Sivret,
Special Education Specialist,
Riverton Middle School

About Corrective Reading and Read to Achieve

Corrective Reading is designed to promote reading accuracy, fluency, and comprehension skills of middle and high school students who are reading below their grade level.

Read to Achieve provides comprehension strategies that help middle and high school students achieve in content-rich classes such as science and social studies.
Math Success at John R. Kment Elementary

Overview

There was no shortage of reasons for why students at John R. Kment Elementary School scored low in math. Over 76 percent of the students were from economically disadvantaged households. Classrooms averaged more than 30 students. The number of homeless students was increasing. On top of that, state education funding was decreasing alongside parental involvement. However, Principal Dr. Shawn K. Wightman and his staff stayed focused on finding a solution that would turn around the students’ math performance. And they found one.

“We decided to use SRA Connecting Math Concepts® (CMC) base on research reports reviewing the program,” Wightman said. “The data showed that CMC has a proven track record in augmenting mathematics achievement,” he said. Based on the positive data and reviews, Wightman selected CMC as the program to raise his students’ math scores and unleash their untapped potential in mathematics.
Implementation

Asked why it was so important to implement a new mathematics curriculum, Wightman offered a number of statistics. Students who take algebra and geometry go on to attend college 83 percent of the time. Without those classes, the percentage falls to 36 percent. Almost 90 percent of all new jobs require math skills above the high school level, and the majority of four-year colleges require three-to-four years of high school math for admission.

He even cites the everyday life skills that demand strong math skills, such as understanding graphs, charts, and opinion polls in the media, calculating house and car payments, and figuring out which long-distance telephone service provider is the most cost-effective.

Wightman’s knowledge about how important math skills are for his students, however, didn’t automatically mean that everyone at John R. Kment Elementary was on board with implementing SRA Connecting Math Concepts: Comprehensive Edition.

“Initially, the staff didn’t like the idea of such a drastic change in the instructional delivery of math curricula,” Wightman explained, referring to CMC’s Direct Instruction teaching style. However, the staff was committed to finding a way to turn around its students’ math achievement scores. And after conducting an initial staff training and designing an ongoing professional development schedule with the help of McGraw-Hill Education, CMC was piloted at John R. Kment Elementary in the fall of 2013.

As a Direct Instruction program, CMC focused on assessing the students’ math skills. Explicit lessons that included elements such as timed activities, fast pacing throughout the lessons and incorporating repetition as a math skill-development strategy were then employed as instructional methods in the classroom.

Reaction

Although teachers were initially hesitant to use the instructional delivery method of Direct Instruction because of their inexperience with the teaching method, the results they experienced quickly transformed them into strong supporters. “They support Direct Instruction now,” said Wightman. “Students are happy their grades are improving. Parents are happy that grades are improving. Teachers are happy the program is working.” Wightman summed up his thoughts on the program saying, “It’s effective, easy-to-use, and resulted in improved educator efficiency and increased student achievement.” In addition to praising CMC’s Direct Instruction delivery method, Wightman also referenced SRA 2Inform®, a resource designed to monitor student progress and complement Direct Instruction programs as a major contributing factor to the success of CMC.

After one year of experiencing pilot program success, Roseville Community Schools adopted the CMC curriculum in all its elementary classrooms, providing a shared, consistent model for teaching mathematics throughout the district. “We now have a complete horizontally- and vertically-aligned curriculum that is consistently taught with fidelity,” said Wightman.

Students are happy their grades are improving. Parents are happy that grades are improving. Teachers are happy the program is working.

Dr. Shawn K. Wightman, Principal, John R. Kment Elementary School
**Results**

The increase in mathematics achievement demonstrated by John R. Kment Elementary students who were taught with *SRA Connecting Math Concepts: Comprehensive Edition* was dramatic. According to AIMSweb, a universal screening, progress monitoring, and data management system that supports Response to Intervention and tiered instruction, 56 percent of John R. Kment Elementary students had a high probability of meeting proficiency standards on the state mathematics test when CMC was introduced in the fall of 2013. By mid-year, the AIMSweb report jumped 21 percentage points in the same category, identifying 77 percent of the students as prepared to pass the test.

In one case, Wightman saw a previously struggling first-grade, special-education student score 24 out of 28 on the Math Computation (M-COMP) assessment—a collection of math computation probes that is consistent with the AIMSweb assessment. This improvement was due to skill increases in both basic math computation and mathematics concepts and applications. The gains occurred simultaneously with a decrease in the number of student discipline referrals to the school office. Wightman believes that student discipline improved, “because students were experiencing more success in math.” He saw the rising tide of academic achievement as a mechanism that lifted students’ self-confidence in addition to their test scores.

After *SRA Connecting Math Concepts: Comprehensive Edition* was implemented, the school experienced a reduced number of Tier 3 students, and an increasing number of Tier 1 students across all grade levels, even before one full year of instruction was complete. According to AIMSweb statistics measuring the progress of John R. Kment Elementary students from fall through winter, there was a 56.1 percent average decrease in the number of Tier 3 students across grades two through six and an average increase of 77.4 percent in the number of Tier 1 students across the same grade levels. Third-graders, whose progress is significant for all districts as they take the state competency test, experienced a 32 percent average decrease in Tier 3 classification and a 22.5 percent average increase in Tier 1.

*It’s effective, easy-to-use and resulted in improved educator efficiency and increased student achievement.*

Dr. Shawn K. Wightman,
Principal,
John R. Kment Elementary School
The Future

SRA Connecting Math Concepts: Comprehensive Edition has now been implemented in all K-5 classrooms throughout Roseville Community Schools. According to Wightman, “Student grades have improved, standardized achievement test scores have gone up and students are more engaged during lessons.” Based on his experience with CMC, Wightman feels like he’s making a difference in the lives of his students, which is one reason why he recommends it to other schools and districts. “Our success with SRA Connecting Math Concepts: Comprehensive Edition is a prime example of why McGraw-Hill Education is a trusted provider of proven, powerful, and innovative education solutions for all students,” he said.

With SRA Connecting Math Concepts, significant math skills can be taught to at-risk or underperforming students while bringing them up to grade level. The Comprehensive Edition contains levels A–F and grades K–5 and is a proven solution for at-risk students, either as an Intervention or as a core replacement.

The program contains:

- Common Core-aligned content to help students meet or exceed state standards.
- Track sequencing that allows students to make connections and rapidly build their understanding of concepts.
- Digital resources and activities to engage students’ interest and reinforce mastery.

About McGraw-Hill Education Direct Instruction Programs

This research-proven K–5 literacy and language arts program has a 35-year history of helping even significantly at-risk students become fluent, independent, and highly skilled readers.

This program focuses on decoding and comprehension and target readers in grades 3 and up who are one or more years below grade level. It also addresses many deficits common to older learners.

Read to Achieve offers two unique modules designed to equip adolescent readers with the comprehension skills and strategies they need to succeed in science, social studies, and English/Literature classes.
Discover the Direct Instruction difference at mheonline.com/disuccess