



**MULTISYLLABLE  
ROUTINE CARDS  
EVIDENCE PACKET**

**LXD RESEARCH  
95 PERCENT GROUP**

## 95 Percent Group Product Portfolio

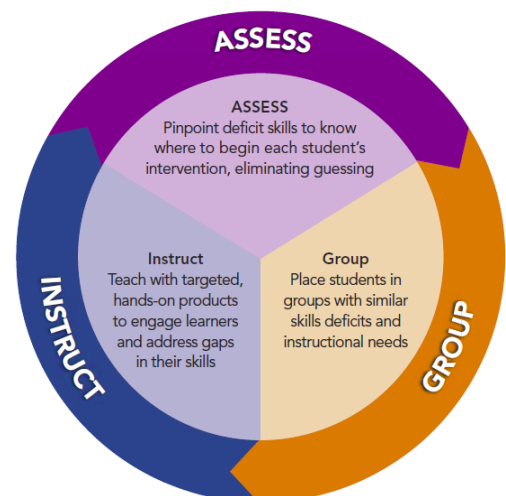
**To get 95 percent of our students reading at grade level...an achievable goal.** It's that simple and that important to our company. Our processes are proven. Our approaches are unique.

We are focused on impacting reading achievement in pre-K through Grade 12 students. We achieve this through our dedicated and customized approach. We offer comprehensive education consulting, diagnostic assessments, and instructional materials designed to drive intervention and increase student achievement with all students, especially struggling readers.

Our collection of evidence-based instructional materials, manipulatives, demonstration videos, diagnostic instruments, and other resources continues to grow. Our materials are developed based on the Science of Reading and are designed with a K-8 teacher perspective. Our product line began as we created skills focused materials to address needs identified during our consulting assignments.

**Our processes have been field tested with thousands of students and include the use of:**

- **Skill continuums** that give educators strategic, actionable insight about the sequence of instruction and provide a framework for identifying progression of skill mastery by grade level;
- **Diagnostic assessments** that align to the skills continuum and help educators identify student deficits to make better decisions about where to begin instruction;
- **Instructional materials** that are evidence-based, practical, and provide the lessons and all components needed to deliver focused, targeted intervention by teachers who have limited time for lesson planning. Our materials were developed by our staff, all of whom are former teachers, based on clients identifying needs and teachers piloting prototypes; and
- **Professional development**, coaching, and follow-up at the district and building level so that data-informed instructional practices and effective interventions are sustained.





# 95 Percent Group Product Portfolio

Our products provide both decoding and meaning-focused instruction to supplement core reading instruction and provide intervention for grades K-6.

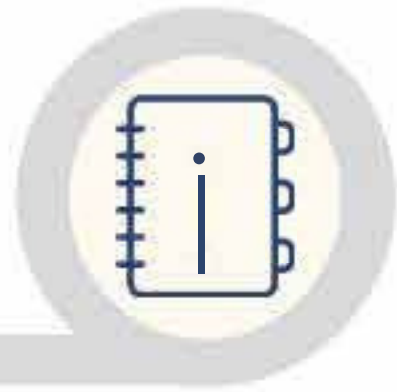
	Kindergarten	Grade 1	Grade 2	Grade 3	Grades 4-6	
<b>CORE</b>	95 Phonics Core Program™					
		95 Phonics Booster Bundle™: Summer School 2nd Edition				
		95 Phonics Booster Bundle™: Tune-Up				
		Teaching Blending®				
					Multisyllable Routine Cards Package*	
					Vocabulary Surge™ A & B*	
<b>ASSESSMENT</b>	Phonological Awareness Screener for Intervention™ (PAS!)					
			Phonics Screener for Intervention™ (PSI)			
<b>INTERVENTION</b>	Phonological Awareness Lessons					
		Teaching Blending®				
		Phonics Lesson Library™: Basic, Advanced, and Multisyllable Editions				
		Phonics Chip Kit™: Basic, Advanced, and Multisyllable Editions				
	(Use as Kindergarten enrichment)	95 Phonics Skill Series™: Short Vowels*				
		95 Phonics Booster Bundle™: Summer School Edition I Tune-Up				
					Vocabulary Surge™ A&B (Gr 5-6)	
					Comprehension (Gr 3-6)	

\*Resource can be used in whole group, small group, or with intervention groups



# 95 Percent Group Professional Learning Portfolio

As an established literacy leader, we provide comprehensive professional learning options aimed at improving educator preparedness and student reading outcomes. Our experienced consultants provide in-depth product training, personalized coaching and consulting services, as well as foundational knowledge building courses grounded in the Science of Reading and Structured Literacy.



## Product Training

- 95 Phonics Core Program™
- 95 Phonics Booster Bundle™: Summer School 2nd Edition
- 95 Phonics Booster Bundle™: Tune-Up
- 95 Phonics Skill Series™: Short Vowels
- Comprehension (Grades 3-6)
- Multisyllable Routine Cards Package
- Phonics Chip Kit™: Basic, Advanced, and Multisyllable
- Phonics Lesson Library™: Basic, Advanced, and Multisyllable
- Phonics Screener for Intervention™ (PSI)
- Phonological Awareness Lessons
- Phonological Awareness Screener for Intervention™ (PASI)
- Teaching Blending®
- Vocabulary Surge™ A & B



## Implementing High-Impact RTI/MTSS Strategies

- Launching Intervention Groups
- 10 Success Factors for Literacy Intervention: Getting Results with MTSS in Elementary Schools



## Coaching and Consulting Services: Deepening Teacher and Leader Practice

- Teacher/Collaborative Learning Teams
- Professional Learning Communities
- Instructional Coaches
- Reading Specialists
- School/District Administrators



## Foundational Knowledge Courses: Building Capacity in the Science of Reading

- Science of Reading: Parts I and II
- It's All about Language
- Advanced Word Study
- All the Phons
- Depth and Breadth of Phonics



## Multisyllable Routine Cards

(PH3300)

ELA CCSS Strand(s) addressed: Reading, Speaking & Listening, Foundational Skills

Targeted Grade Level(s): Grade 3-5

Resource Type: Instructional materials include a spiral-bound, laminated Teacher Guide and whole-group student consumable materials available online at no additional costs, digital presentation file for each lesson

The *Multisyllable Phonics Routine Cards* (MSRC) are designed to help students solve the mystery of multisyllabic words by recognizing patterns, identifying correct vowel sounds, and applying syllable division rules. The routines are ideal for whole-class instruction, designed to take just 10 minutes a day, or to use as part of a small-group intervention lesson.

MSRC provides direct and explicit instruction on how to apply knowledge of syllable types and divisions in order to read multisyllable words. Decoding multisyllabic words is an essential skill that has a direct impact on reading accuracy, fluency, and the comprehension of text. Pronouncing longer words is often a challenge for students in grades 3 and above.



**ROUTINE 23 Closed Syllable** Step 1: Recognize

Step 1: Recognize Closed Syllables

Step 1: Find Vowel: mit (hand pointing to 'i')

Step 2: Find Consonant: mit (hand pointing to 't')

Step 3: Gesture: mit (hand pointing to 'i')

Step 4: Place Card: mit (hand pointing to 'i')

**I Do**

Good readers use their knowledge of syllable types to read and spell multisyllable words. There are six syllable types; today we'll study the first one, which is called the closed syllable. To recognize a syllable type, we'll focus on the pattern of the vowel and consonants. The pattern for the closed syllable type is 1 vowel letter, followed by 1 or more consonants. It's called a closed syllable because the consonant "closes in" the vowel letter. Watch what I do to decide if a syllable is closed. Sometimes we'll use syllables that are not words; therefore, you may not recognize these syllables.

- (Show me) Look at this syllable.
- First I find the vowel letter and touch under it. (Touch under vowel letter) There is 1 vowel letter.
- Then I look at the consonants. The single vowel letter is followed by 1 or more consonants. (Scrap index finger under vowel and the consonants)
- The gesture for a closed syllable is a closed fist, which I position under the syllable.
- I place the mit card under the column for Closed Syllable.
- Watch me figure out the types of more syllables. (Repeat with more syllables, follow text below for nonexample syllable types.)

Syllable Type	Teacher Text	Gesture
Vowel Team Silent-e	1. (Show syllable card) 2. (Show 2 fingers under the vowel letters) 3. There are 2 vowel letters so this can't be a closed syllable. 4. This syllable card goes under the Not Closed column.	Vowel Team: <i>glam</i> Gesture: <i>chate</i>
Open	1. (Show syllable card) 2. (Show 1 finger under the vowel letter) 3. There is 1 vowel letter, but it's NOT followed by a consonant so this can't be a closed syllable. 4. This syllable card goes under the Not Closed column.	Open: <i>ta</i>

Syllable List	Nonexamples
Examples chog flos mit spax dax jaro roob wik drel kb skg zarf fen mar shair zop	Nonexamples chate be sho fibe ja demisp fibe joom ta gloram ro zt

The routines are taught through a three-step technique:

- Step 1, *Recognize the Syllable Type*, the focus is on learning to recognize the pattern and to make a gesture to enable the teacher to know whether students are correctly identifying it. Students sort single-syllable words until they develop fluency at recognizing the pattern of consonants and vowels of the particular syllable type.
- Step 2, *Read the Syllable Type*, the focus shifts to accurate and fluent reading of the syllable. The students apply their fluent recognition of the syllable type to produce the correct vowel sound that applies to each syllable type, and then blend and read the syllable.
- Step 3, *Read Multisyllable Words*, the purpose shifts to applying recognition and vowel sound pronunciation to reading two syllable pseudowords and words that appear in text. Instruction is provided on using proper techniques for syllable division.

This resource provides daily practice through the use of fast-paced routines that require multiple answers per minute using both gestures and verbal responses. Additional opportunities are provided using the student practice sheets that can be downloaded from your online customer account. The digital presentation feature allows the teacher the opportunity to circulate around the room to monitor learning. Effective pacing of the lesson and increased student engagement is a result of this digital support tool.

Alignment across 95 Percent Group's suite of reading intervention programs allows for supplemental instruction as needed. For example, students showing insufficient response to MSRC instruction can benefit from the corresponding lesson being taught using the more intensive process in our Phonics Lessons Library. Our consultants show teachers how to layer the phonics products to improve instruction.

Click on the links provided to view our complimentary [Multisyllable Routine Cards Sample Lesson](#), additional [MSRC product information](#) in our Web Store and our [MSRC Efficacy Reports](#).

# 95 GROUP LLC MULTISYLLABLE ROUTINE CARDS

ESSA  
Level 3  
Evidence

20-21/21-22 RESULTS - FOURTH & FIFTH GRADE

## PROGRAM DESCRIPTION

MSRC helps students solve the mystery of reading multisyllabic words by recognizing patterns, identifying correct vowel sounds, and applying syllable division rules. The student-friendly routines on the six syllable types are ideal for whole-class instruction, designed to take just 10 minutes a day, or to use as part of a 30-minute small-group intervention lesson.

## SAMPLE DESCRIPTION

LOCATION: Wicomico, Maryland

GRADE: 4-5

SIZE: 2,868

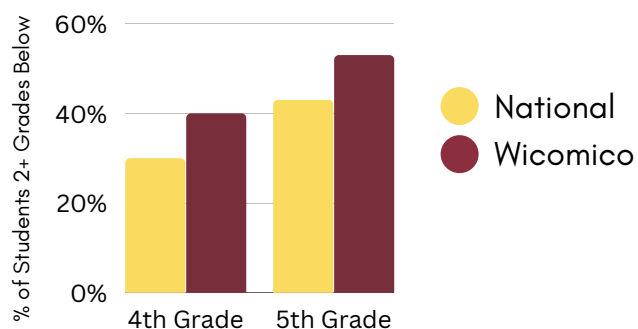
DEMOGRAPHICS:

- 40% Black/African American
- 10% ELL
- 11% SPED
- 65% Economic Disadvantage

## OPPORTUNITY GAP

National statistics measuring the opportunity gap from before the pandemic (Fall 2019 to Fall 2021) show stalled growth. For Wicomico, the proportion of students two years below the benchmark was 10 points higher than the national average in Fall 2021.

Fall 2021 iReady Composite Status



Curriculum Associates, 2022

## CHANGE IN LITERACY TOOLKIT

Wicomico leaders rolled out MSRC across 11 schools in 2021-2022 to change the trajectory and reduce the proportion of students two grade levels behind.

2020-2021

**LITERACY CURRICULUM - HYBRID**  
District-Created Curriculum

2021-2022

**NEW LITERACY TOOLKIT - IN PERSON**  
District-Created Curriculum <sup>TM</sup>  
+ **Multisyllable Routine Cards** <sup>TM</sup>

ASSESSMENT

**Ready reading**

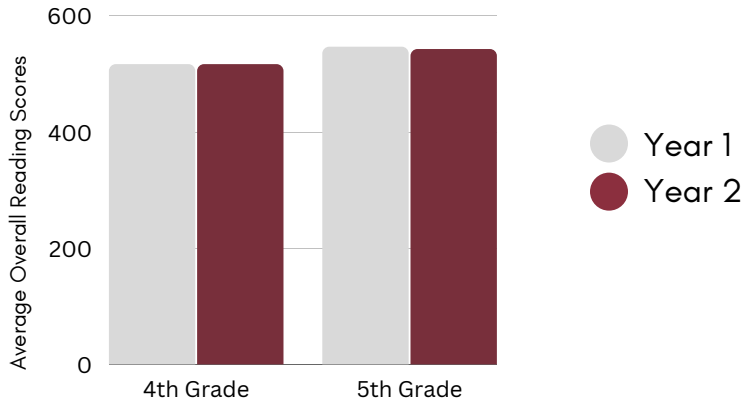
iReady Reading assessment was conducted at the beginning, middle, and end of each school year (2020-2021, 2021-2022).

COMPARING YEAR 1 TO YEAR 2

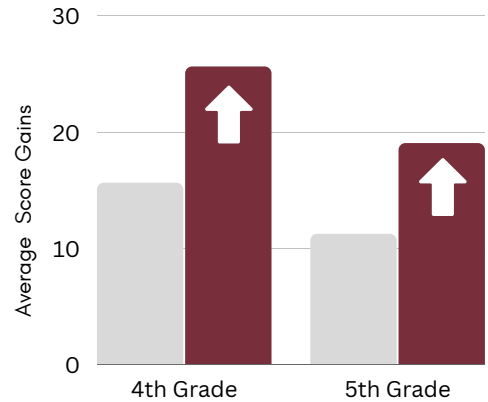
At the start of each year, students in each grade had similar overall reading scores on iReady.

Students in Year 2 saw higher gains than the students in Year 1 by simply adding MSRC to daily instruction.

Fall iReady Composite Scores



iReady Composite Scores Growth Fall to Spring



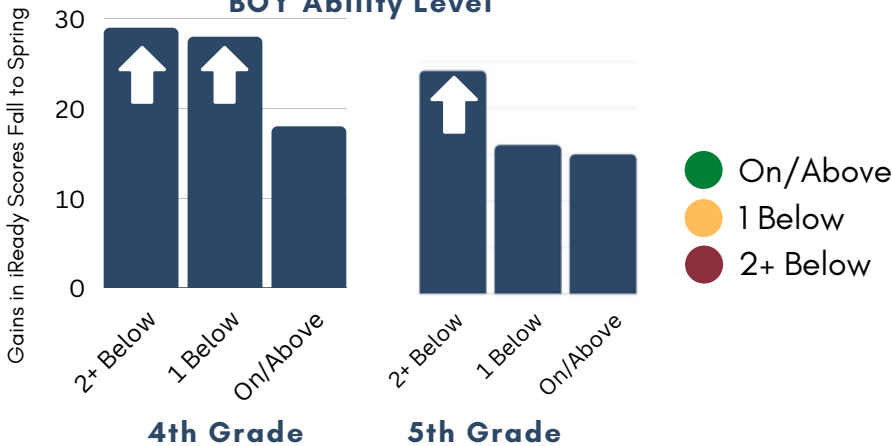
Grade 4:  $t(1270) = 13.2, p < .001$ , Cohen's D Effect Size = 0.30  
 Grade 5:  $t(1261) = 12.3, p < .001$ , Cohen's D Effect Size = 0.23

YEAR 2 GROWTH CHANGED STUDENT TRAJECTORIES

Students who were farther behind in the Fall made higher gains by Spring with MSRC, helping them close achievement gaps (bars with arrows had higher gains than other bars).

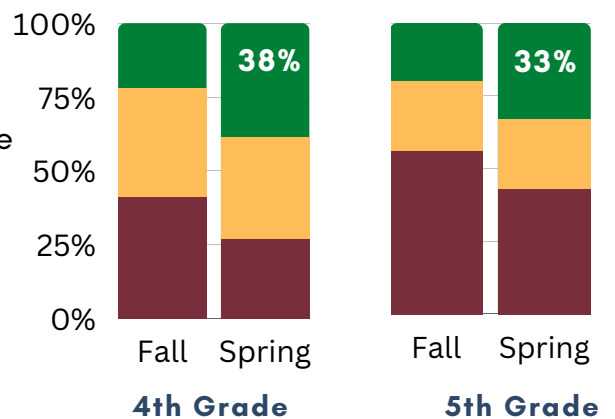
Gains made by students below grade level using MSRC resulted in meaningful increases in the students working on/above grade level by Spring (22% to 38% in fourth grade and 20% to 33% in fifth grade).

Gains Across the Year Varied by BOY Ability Level



Grade 4:  $f(2,647) = 6.9, p < .001$ , Cohen's D Effect Sizes = 0.42, 0.31  
 Grade 5:  $f(2,534) = 5.3, p = .005$ , Cohen's D Effect Sizes = 0.24, 0.28

Benchmark Status by Time Period



Grade 4:  $f(2037) = 8.5, p < .001$ , Cohen's D Effect Size = 0.38  
 Grade 5:  $f(1738) = 6.3, p < .001$ , Cohen's D Effect Size = 0.30



For more information about the PA Lessons, this study or other products, contact [info@95percentgroup.com](mailto:info@95percentgroup.com)



Learning Experience Design  
 LXD Research  
 a division of Charles River Media Group, LLC

## Logic Model for Multisyllable Routine Cards | 95 Percent Group Inc.

**Problem statement:** Second-third grade students need direct and explicit instruction on how to apply knowledge of syllable types and divisions in order to read multisyllable words. Teachers do not have the curricular materials with research-based strategies for routinely teaching and reinforcing skills related to reading multisyllable words.

<b>Resources</b> (What resources are or could be available?)	<b>Strategies and Activities</b> (What will the activities, events, and such be?)	<b>Outputs</b> (What are the initial products of these activities?)	<b>Short-term and Intermediate Outcomes</b>	<b>Long-term Outcomes &amp; Impacts</b>
<p>Administrator and teacher commitment to replace 10 minutes of daily whole group phonics instruction with this supplemental program. It can also small groups.</p> <p>Multisyllable Routine Cards (MSRC) with direct and explicit instruction on how to apply knowledge of syllable types and divisions to read multisyllable words.</p> <p>Gestures and verbal responses to recognize syllable types, read syllable types, and then read multisyllable words.</p> <p>Teacher's Edition &amp; MSRC Digital Presentation that includes:</p> <ul style="list-style-type: none"> <li>• Header Cards</li> <li>• Syllable Cards</li> <li>• Word Cards</li> <li>• Pseudoword Cards</li> <li>• Word Lists</li> <li>• Handouts and Answer Keys</li> </ul> <p>Professional Learning:</p> <ul style="list-style-type: none"> <li>• Training video</li> <li>• Virtual workshop</li> </ul>	<p>Create a daily 10 minute block for MSRC instruction or use as part of small-group instruction.</p> <p>Follow the structured literacy dialogue for lessons in the Teacher's Edition and using the presentation file for recognizing patterns, identifying correct vowel sounds, and applying syllable division rules.</p> <p>Provide students with dozens of retrieval opportunities in every lesson.</p> <p>Students complete weekly formative assessments.</p> <p>Teacher uses a typical wireless remote to advance the digital slides which will allow the teacher to move about the classroom during instruction to monitor and support learning.</p>	<p>Students below benchmark receive focused intervention instruction (on advanced phonics) daily at the designated time.</p> <p>Students receive multiple practice opportunities and consistent skill reinforcement.</p> <p>Teachers deliver comprehensive phonics lessons using a gradual release model (I Do, We Do, You Do).</p> <p>Phonics assessments and phonics lessons are consistent across grade/school levels.</p> <p>Teachers analyze phonics data weekly to monitor progress.</p>	<p>Students make progress along the continuum of phonics skills.</p> <p>Students specific skill gaps are addressed in a timely manner, allowing for more accurate and rapid word recognition.</p> <p>Students build better understanding of phonics patterns and can demonstrate proficiency in reading multisyllable words.</p> <p>Students apply new knowledge during classroom activities that require decoding and encoding of multisyllable words.</p> <p>Students read more fluently and exhibit stronger reading comprehension.</p> <p>Students score at or above benchmark on Universal Screener phonics and passage skill measures.</p> <p>Staff knowledge and expertise of practices that align with science of reading expand.</p>	<p>Students maintain grade-level proficiency without additional intervention (reducing costs associated with extra services), passing state reading assessments in grades 3-5.</p> <p>Teachers build their confidence and competence to effectively and efficiently teach reading to all students.</p> <p>Schools build institutional knowledge about advanced phonics instruction and adopt new practices for supporting readers who struggle with advanced phonics.</p> <p>Economic and social benefits of having strong readers, such as reducing dropout rate and increased opportunities for employment.</p> <p>Students achieve their desired goals, live to their full potential, and participate in our democratic governance.</p>

**Assumptions:** Teachers will be open to changing their approach to phonics intervention and instruction. Leadership has the skills to enable cultural shift towards data-driven teaching, including the management of how much change is happening across the school community.







**MULTISYLLABLE  
ROUTINE CARDS  
EFFICACY STUDY,  
GRADES 4-5, 2020-2022**

Rachel Schechter, Ph.D. & Paul Chase Ph.D.  
November 2022

**LXD RESEARCH  
95 PERCENT GROUP**

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## Accelerating Reading Recovery with the 95 Percent Group MSRC in Grades 4-5 (2020-2022)

Prepared by Rachel Schechter, Ph.D., Paul A. Chase, Ph.D., and [Learning Experience Design \(LXD\) Research](#)

### Introduction

With more struggling readers on their rosters, teachers need to provide targeted interventions to address skill gaps and prepare their students for grade-level work. Multiple reports have found that students and schools have been slow to rebound from the COVID-19 pandemic in regard to reading achievement (for example, [Curriculum Associates](#) and [NWEA](#)). Furthermore, inequities present before the pandemic has been widened, and progress from interventions to address gaps has been erased ([NAEP](#)). The incoming fourth graders in Fall 2022 have nearly 40% of students two or more grade levels behind in their phonics skills ([Curriculum Associates](#)).

High-quality reading instruction continues to be important in fourth and fifth grade when students are increasingly confronted with unfamiliar multisyllabic words. If upper elementary students lack foundational [word analysis skills](#), they will struggle to comprehend texts not just in ELA, but all of their content area classes. Explicit instruction in syllable types has been shown to help struggling readers decode long words with greater independence (Knight-McKenna, 2008). The 95 Percent Group offers an engaging approach to teaching syllable types with their [Multisyllable Routine Cards](#) (MSRC).

Designed for grades three and up, the MSRC package includes a teacher's edition that follows the gradual release model. Teachers provide explicit, whole-group instruction using the provided digital slides, followed by small-group practice with the print cards. On Day 5 of every lesson, teachers gather data to assess student progress toward mastery of the syllable types. An important aspect of the MSRC approach is that it helps teachers develop a predictable routine for literacy instruction.

It is widely held that clear instructional routines are effective for supporting students with disabilities, increasing engagement, and reducing unwanted behaviors. Routines are also important when addressing [phonics gaps](#) because students can focus solely on learning the targeted skill, as they are already familiar with the lesson format and style. Following instructional routines provides stability and predictability for students, but the hands-on component of the MSRC helps keep students actively engaged in lessons. The related digital presentations also help teachers with lesson pacing, reduce prep time, and support virtual learning.

The Multisyllable Routine Cards have been available since 2010, with new digital presentation files added in 2020. This formal research study was needed to determine the efficacy of the 95 Percent Group's MSRC. 95 Percent Group partnered with LXD Research to conduct a third-party evaluation

of MSRC, implemented during the 2020-2021 and 2021-2022 school years in a diverse Maryland school district.

### Evaluation Questions

The evaluation aims to answer the following questions:

1. How does the use of MSRC affect student achievement acceleration on benchmark reading assessments after the pandemic year, Fall 2021 - Spring 2022?
2. What does the impact of the 95 Portfolio look like for different student subgroups (Economically Disadvantaged and Black students)?

### Methods

The 95 Portfolio is being implemented in Wicomico County, a geographically and demographically diverse school district in Maryland that received \$47.4 Million in ESSER Funds to support recovery from the pandemic ([Edunomics Lab at Georgetown](#), 2022). Estimates from Georgetown University indicate that students at Wicomico lost an average of 15 weeks of learning in reading during Spring 2020-Spring 2021. A [2022 national report](#) measuring student achievement in Spring 2022 (compared to Spring 2021 and pre-pandemic averages) showed stalled growth and a 3-point increase in fourth and fifth-grade students below grade level in reading. For Wicomico, the proportion of students two years below the benchmark was 10 points higher than the national average in Fall 2021.

This study is a longitudinal quantitative analysis using data collected by the school district four times during the 2020-2021 and 2021-2022 school years. iReady was used by all students across the district for the full two-year period, including the Fall and Spring assessments analyzed in this study for each of the two academic years. During 2020-2021, school leaders supported hybrid instruction for most of the year. Wicomico schools were back in person for 2021-2022, and educators incorporated MSRC in ways that best worked for them (typically whole group instruction, once a day). Across 11 schools, 14 teachers in grades 4-5 logged in to access MSRC materials.

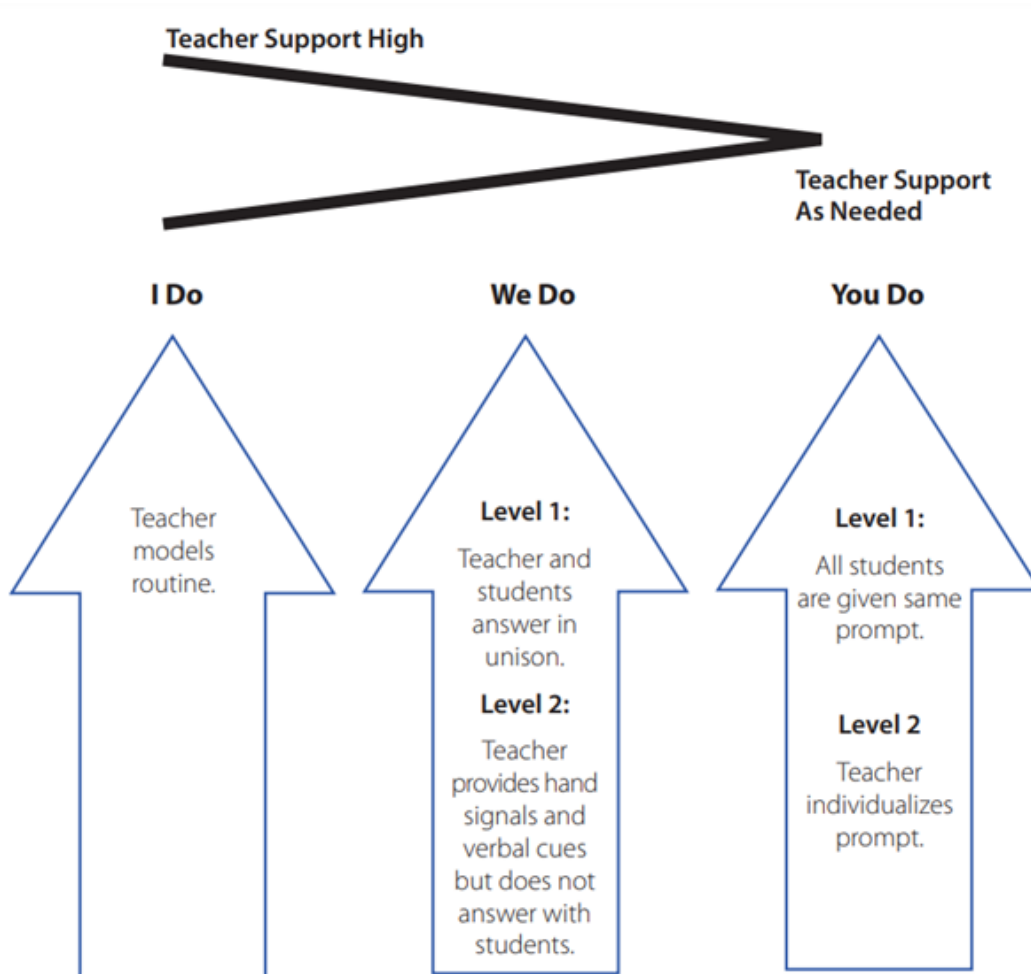
### Treatment Group: Program Key Features

MSRC is part of 95 Percent Group's core curricula for grades 3-6 students. MSRC features explicit instruction in the six syllable types (Closed, Long Vowel Silent-e, Open, Vowel Team, Consonant-le, Vowel-r) and syllable division to help students decode multisyllabic words. MSRC cards are designed to deliver explicit, systematic, sequential instruction in an "I Do, We Do, and You Do" routine that includes modeling and options for differentiated instruction (Figure 1). The teacher guide also provides corrective feedback and continual assessment to adjust instruction to meet students' needs. Before receiving instruction using the MSRC, students must know the difference between vowels and consonants, identify them, segment/blend sounds, and know digraphs and blends.

The Multisyllable Routine Cards provide direct and explicit instruction on how to apply knowledge of syllable types and divisions to read multisyllable words. The directions and instruction are very student friendly and easily adapted to many grade levels. The routine cards have been developed to be used in two different ways:

- Tier I whole-class instruction for five minutes a day and
- Tier II interventions for those students struggling to read multisyllable words.

Figure 1. Gradual Release Model



### Three-Step Technique

The routines are taught through a three-step technique designed to help students decode multisyllable words. The three steps are repeated for each of the six syllable types.

*Table 1. Steps for Each Syllable Type*

Step	Description
Step 1: Recognize the Syllable Type	The focus of the first step is on learning to recognize the pattern and to make a gesture to enable the teacher to know whether students are correctly identifying it. In this first step, students do not read the syllables. The gestures were selected to be easily associated with the name of the syllable. For example, the closed-syllable gesture is a closed fist, and the open-syllable gesture is an open hand. Students sort single-syllable words until they develop fluency in recognizing the pattern of consonants and vowels of the particular syllable type.
Step 2: Read the Syllable Type	The second step focuses on reading the syllable type. The students apply their fluent recognition of the syllable type to learn the correct vowel sound that applies to each syllable type and then blend and read the syllable. Syllables that are not real words are intentionally used because students need to practice with syllables that are not single-syllable base words they will recognize by sight.
Step 3: Read Multisyllable Words	This step's purpose is to practice applying syllable recognition and vowel sound pronunciation to reading two-syllable pseudowords and words in the text. Instructions are provided on how to divide the word into the appropriate number of syllables. Students are taught to look for and underline vowel sounds and then look at the consonants between the vowels.

### **MSRC Digital Resources**

95 Percent Group's digital resources are rooted in the company's relationship, dialogue, and responsiveness to teacher needs. The 95 Percent Group developed a set of fast-paced routines when they noticed upper elementary students face challenges when trying to decode multisyllabic words. Poor readers face deficits in phonological processing that affect their decoding skills, which is the primary challenge in upper elementary grades (Toste et al., as cited in Blachman, 2013; Leach, Scarborough, & Rescorla, 2003; Shankweiler, 1999; Vellutino, Fletcher, Snowling, & Scanlon, 2004; Yuill & Oakhill, 1991) That's why 95 Percent Group created an intervention system that could be applied in the Tier 1 environment or a small group. Multysyllable Routine Cards (MSRC) were created using a combination of meta-analyses, theoretical research, and empirical research on multisensory learning, systematic, explicit phonics instruction, and guided practice.

When the pandemic hit, and schools closed, the product team wondered, "What can we do right now so that schools can use this new whole-group curriculum on Zoom or Google Meet?" The teacher cannot be at the front of the classroom or holding up cards for students to see. Powerpoint, Google Slides, and tools such as Pear Deck and Quizlet inspired the product team to create a digital tool to

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show students what they needed for every lesson one step at a time. One particular study related to this approach is Pear Deck, which shows that interactive lecture slides are more effective than passive learning (Javed & Odhabi, 2018). For back-to-school in Fall 2021, every lesson in the 95 Multisyllable Routine Cards had corresponding HTML files that walked the teacher and classroom through every single step of the lesson. These files were intentionally designed to follow the teacher edition's layout and reduce the educator's cognitive load by making the presentations easy to follow and accessible on any device. These HTML animated files contain images to guide instruction for each lesson. This digital transformation allowed the product to be used for in-person and remote settings.

95 Percent Group Multisyllable Routine Cards leverages research-based practices to improve the educator implementation experience of our curricular products. By facilitating interactions through technology, learning sciences, and the science of reading, the Multisyllable Routine Cards create a unique experience for students and educators. When designing our phonics continuum and resources, the team consulted research from evidence-based studies to enhance learning outcomes. In particular, the MSRC built on the findings conducted by the National Reading Panel, a rigorous team comprised of the NICHD and the U.S. Department of Education, and presented to Congress to guide the instructional principles of their products (2000). By following evidence-based practices, the 95 Percent Group created products that align with the science of reading, such as crafting a systematic phonics continuum and curriculum and incorporating multisensory and scaffolded lessons for diverse learners that could be utilized in a tier 1 environment or small group instruction (Blomert & Froyen, 2010; Ehri et al., 2001).

Most whole class and small group reading products require the teacher to prepare and write on the board. Any PowerPoint or Google Slides are created by the teachers or purchased on sites like Teachers Pay Teachers. 95 Percent Group's HTML files are unique because they were designed to match the lesson design exactly. They ensure consistent, high-quality instruction derived from evidence-based practices for whole-class instruction across classrooms and schools. Because the scripts and presentations are pre-made, teachers save planning time and experience reduced cognitive load, enabling them to focus on students' mastery of concepts (Rockoff, 2004). Additionally, educators are no longer bound to the front of the classroom; with the animated HTML files, they can engage all students in interactive learning while simultaneously monitoring progress (Javed & Odhabi, 2018; Pepler et al., 2022). Each lesson follows the Gradual Release of Responsibility method (I do, we do, you do); this, in tandem with the presentations, allows teachers to scaffold further based on the individual needs of their students (Rosenshine, 2012).

### **Other Curriculum**

The district uses its own reading comprehension (knowledge) curriculum that aligns with [The Maryland College and Career Ready Standards \(MCCRS\) for English Language Arts](#). Fountas and Pinnell Classroom books include Shared Reading, Interactive Read Alouds, and Book Clubs.



## iReady

iReady Diagnostic Reading is a 3x a year assessment that helps teachers identify children at risk for reading difficulties and determine the skills to target for instructional support. iReady assessments are standardized, delivered online, and assess core literacy skills (Table 2).

*Table 2. iReady Diagnostic Reading Subtests and Skill Coverage*

<b>Subtest</b>	<b>Grades</b>	<b>Indicators of These Basic Early Literacy Skills</b>
Phonics	K-4	Letter Recognition Consonant Sounds Short and Long Vowels Decoding One- and Two-Syllable Words Inflectional Endings Prefixes and Suffixes Digraphs and Diphthongs Vowel Patterns Decoding Longer Words
Vocabulary	K-12	Academic and Domain-Specific Vocabulary Word Relationships Word-Learning Strategies Use of Reference Materials Prefixes, Suffixes, and Root Words
Comprehension: Informational Text	K-12	Author's Purpose Categorize and Classify Cause and Effect Drawing Conclusions/Making Inferences Fact and Opinion Main Idea and Details, Message Summarizing/Retelling Text Structure
Comprehension: Informational Text (cont'd)		Determining Word Meaning Compare and Contrast Across Different Texts and Mediums Analysis of Close Reading of a Text Citing Textual Evidence
Comprehension: Literary Text	K-12	Point of View and Purpose Cause and Effect Drawing Conclusions/Making Inferences Figurative Language Story Elements Summarizing/Retelling Theme/Mood Analyzing Character Determining Word Meaning Compare and Contrast Across Different Texts and Mediums Analysis of Close Reading of a Text Citing Textual Evidence

## Assessment Sample

A total of 2,868 4th and 5th Grade students from 10 schools participated in this two-year study (4th graders became fifth graders during the study and are only counted once in this total). Overall, students in the cohorts did not differ significantly with regard to gender, race/ethnicity, special education (SPED) status, or English Language Learner (ELL) status (See Tables 3 and 4).

*Table 3. Demographic Descriptions for Treatment and Comparison Groups in Fall 2020*

Grade	Cohort	Sample Size	Male	SPED	ELL	Economic Disadvantage
4th	Year 1	887	51%	12%	10%	66%
4th	Year 2	1,042	51%	10%	10%	65%
5th	Year 1	939	50%	11%	9%	63%
5th	Year 2	887	51%	12%	10%	66%
<b>ALL*</b>	<b>20-22</b>	<b>3,755</b>	<b>51%</b>	<b>11%</b>	<b>10%</b>	<b>65%</b>

\* Fourth-grade continuing students are counted twice.

*Table 4. Demographic Descriptions for Treatment and Comparison Groups in Fall 2020: Race/Ethnicity*

Group	Cohort	American Indian/ Native American	Asian/ Pacific Islander	Black/ African American	White/ European American	Other
4th	Year 1	7%	5%	41%	37%	10%
4th	Year 2	7%	3%	38%	43%	9%
5th	Year 1	6%	3%	41%	41%	6%
5th	Year 2	7%	5%	41%	37%	10%
<b>ALL</b>	<b>20-22</b>	<b>7%</b>	<b>4%</b>	<b>40%</b>	<b>40%</b>	<b>9%</b>

## Procedure

The goal of our analytic procedure was to select students in schools that did not receive the 95 Percent Group intervention in Year 1 of the study (i.e., Fall of 2020 - Spring of 2021), but did receive the intervention during Year 2 (i.e., Fall of 2021 - Spring of 2022). We then compared the Year 1 cohort of 4th-grade students to the Year 2 cohort of 4th-grade students regarding gains in overall literacy scores

from the beginning to the end of the year. We conducted the same comparisons for 5th-grade students in Year 1 and Year 2.

In addition to the main effect of the intervention on literacy score growth, we analyzed whether these effects differed across various subgroups (e.g., economically disadvantaged students).

### **iReady Beginning-of-Year Scores Fall to Fall**

We began by testing our sample's baseline average scores at the beginning of Year 1 and Year 2. For both 4th and 5th Grade cohorts, Year 2 students had similar fall scores to their Year 1 peers (Table 5).

*Table 5. iReady Overall Scale Score for the Beginning of Year Fall 2020 and Fall 2021*

Grade	Average BOY Score Year 1	SD	Average BOY Score Year 2	SD	Significance	Findings
4th	516.1	(56.7)	515.9	(61.4)	(p = .96)	Year 2 students had similar scores to Year 1 (n/s).
5th	545.5	(54.2)	541.8	(58.5)	(p = .24)	Year 2 students had similar scores to Year 1 (n/s).

### **Analytic Approach**

This report focuses on exploring the following research questions about students in Grades 4 and 5:

- How does the use of MSRC affect student achievement growth on benchmark reading assessments after the pandemic year, Fall 2021 - Spring 2022?
- What does the impact of the 95 Portfolio look like for different student subgroups?
  - Students who started the year at different reading ability levels (2+ Grades Below, 1 Grade Below, On/Above Grade Level)
  - Students with different demographic characteristics (Economically Disadvantaged and Race/Ethnicity)?

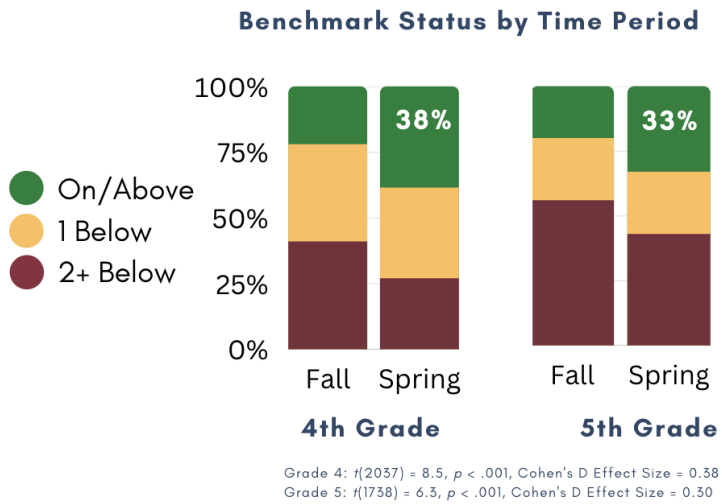
We explored the effect of 95 Percent Group's MSRC use on 4th and 5th Grade students' growth on benchmark reading assessments. These analyses were conducted by comparing growth in iReady scale scores between fall to spring in Year 1 (i.e., the year before the MSRC program was implemented in 10 schools) and fall to spring in Year 2 (i.e., the first year in which the MSRC program was implemented in those same 10 schools). A significant difference between Year 1 and Year 2 average fall-to-spring change in iReady Overall Scale Scores would indicate that the MSRC had an impact on student learning.

We also conducted these analyses with various subgroups of interest to determine whether there were differences in growth in Year 2 by starting reading ability level, Economically Disadvantaged status, and race/ethnicity. All analyses were conducted with the statistical software package SPSS Version 28.

## Results

Using MSRC allowed students below grade level to catch up on critical foundational skills. In year 2, gains made by students below grade level using MSRC resulted in meaningful, statistically significant ( $p < .001$ ) increases in the students working on/above grade level by Spring (22% to 38% in fourth grade and 20% to 33% in fifth grade). The effect size for increasing the percentage of students on or above grade level for the fourth grade was 0.4, and the effect size for the fifth grade was 0.3.

Figure 2. Change Benchmark Status Proportions during Year 2



### Robustness Check - Evaluation of a Randomly Selected Sub-Sample

To confirm the robustness of the finding, we randomly selected a sample of five schools out of 10 to confirm the consistency of the results. For both Grades 4 and 5 in Year 1, there was no significant gains in percentage of students at or above grade level. However, in Year 2, gains made by students below grade level using MSRC resulted in meaningful, statistically significant ( $p < .001$ ) increases in the percentage of students working on/above grade level by Spring (31% to 51% in fourth grade and (30% to 46% in fifth grade). The effect size for increasing the percentage of students on or above grade level for the fourth grade was .40, and the effect size for the fifth grade was .34.

## Gains in Overall Reading Scores

At the start of each year, students in each grade had similar overall reading scores on iReady. Students in Year 2 saw higher gains than those in Year 1 by adding MSRC to daily instruction.

Figures 3 and 4. Impact of 95 Portfolio on iReady Gains over Two Years

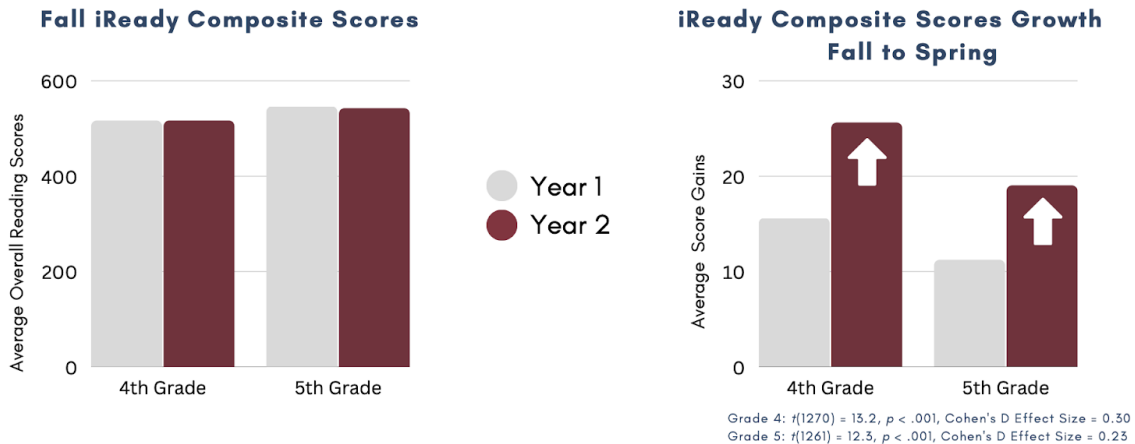


Table 6. Fall to Spring Change in Scale Score by Year

Grade	Change in Scale Score for Year 1	SD	Change in Scale Score for Year 2	SD	Significance	Effect Size
4th	15.6	(35.4)	25.6	(31.5)	<.001	.30
5th	11.2	(34.9)	19.0	(30.9)	<.001	.23

Note:  $P < .05 = *$ ,  $P < .01 = **$ , and  $P < .001 = ***$ , above.

## Robustness Check - Evaluation of a Randomly Selected Sub-Sample

To confirm the robustness of the finding, we randomly selected a sample of five schools out of 10 to confirm these findings. Again, these analyses were conducted by comparing growth in iReady scale scores between fall and spring in each year. A significant difference between Year 1 and Year 2 average fall-to-spring change in Overall Scale Scores indicates that the MSRC impacted student learning.

Table 7. Fall to Spring Change in Scale Score by Year for Randomly Selected Subsample

Grade	Change in Scale Score for Year 1	SD	Change in Scale Score for Year 2	SD	Significance	Cohen's d Effect Size
4th	16.4	(44.1)	25.6	(33.4)	$p < .001***$	.23
5th	13.1	(33.1)	20.4	(25.1)	$p < .001***$	.25

Note:  $P < .05 = *$ ,  $P < .01 = **$ , and  $P < .001 = ***$ , above.

## Student Literacy Assessment Results by Fall Benchmark Group

We examined the results of our independent samples T-tests to determine whether iReady Reading Overall Scale Scores differed significantly between Year 1 and Year 2 (Tables 8 and 9). Students in Grades 4 and 5 at Year 2 did not significantly differ in their starting iReady Overall Scale Scores from their grade level peers at Year 1. However, 4th Grade students in Year 2 gained significantly more in iReady overall scale scores (25.6) than their Year 1 peers (15.6;  $p < .001$ ). Similarly, 5th Grade students in Year 2 gained significantly more in iReady overall scale scores (30.9) than their Year 1 peers (11.2;  $p < .001$ ).

Upon further inquiry, and in contrast with national trends, the higher gains in fourth graders are partially due to strong improvements by students who were one or more grades below grade level. In fifth grade, the students 2+ grades below grade level had the largest overall scale score change from fall to spring in Year 2.

*Table 8. Results by Cohort by Fall Benchmark Group*

Grade	Fall Benchmark Group	Fall Mean Year 1	Change in Scale Score for Year 1	Fall Mean Year 2	Change in Scale Score for Year 2	Results
4th	2+ Below	457	21.7	452	28.9	2+ below and 1 below had significantly greater change than On GL in Year 1 and Year 2 ( $p < .001$ ).
4th	1 Below	526	17.5	527	27.9	
4th	On/Above	586	4.3	582	18.1	
5th	2+ Below	496	15.7	495	23.7	2+ below and 1 below had significantly more change than On GL in Year 1 ( $p < .01$ ). 2+ Below had significantly more change than both other groups in Year 2 ( $p < .01$ ).
5th	1 Below	562	12.7	563	15.7	
5th	On/Above	605	3.0	608	14.5	

Note:  $P < .05 = *$ ,  $P < .01 = **$ , and  $P < .001 = ***$ , above.

*Table 9. Year 2 Relative Percent of Students in Benchmark Groups*

Grade	Year 2	Benchmark Status				
		3+ Below	2 Below	1 Below	Early On	Mid On & Above
4th	Fall	29%	12%	37%	12%	10%
4th	Spring	20%	8%	35%	15%	23%
5th	Fall	29%	27%	24%	12%	8%
5th	Spring	19%	24%	24%	16%	17%

## Additional Exploration of Subgroups

As described in the Assessment Sample in the Methods section, 40% of students were Black and 65% of students were Economically Disadvantaged. For growth during Year 2, the year that the schools used MSRC, we investigated how the intervention impacted Black students compared to White Students (40% of students) and having the status of Economically Disadvantaged. The main findings are described in the list below. Additional details and tables can be found in the [Appendix](#).

For Students at all Benchmark Status levels:

- For both 4th and 5th grade, there were no significant differences by racial/ethnic groups, meaning that both Black and White students had similar gains using MSRC.
- For 4th grade, there were no significant differences by economic status.
- For 5th grade, the Economically Disadvantaged group had marginally higher gains than the non-Economically Disadvantaged group.


For Students who were 2+ Grade Levels behind:

- For both 4th and 5th grade, there were no significant differences by racial/ethnic groups, meaning that both Black and White students had similar gains using MSRC.
- For 4th and 5th grade, there were no significant differences by economic status.

## Discussion

This study examined gains in overall reading performance indexed by iReady scores across 10 schools: fourth and fifth-grade students who received the 95 Percent Group intervention in Year 2 of the study were compared to their grade level's Year 1 cohort regarding gains in overall literacy scores after one year of MSRC instruction. Year 2 students in both grades demonstrated significant gains in iReady overall scale scores compared to their Year 1 peers. When results were broken down by benchmark group, fourth graders that were one or more grades below grade level in reading showed the largest overall scale score change by the end of Year 2. In contrast, fifth-grade students 2+ grades below grade level showed the greatest improvement (compared to students on or above grade level).

To determine if these findings were relevant across race/ethnicity and/or socio-economic status, we analyzed the data with only students that identified as Black/African American and separately with only students whose families were Economically Disadvantaged. There were no significant changes in the between-group differences in outcomes noted above for the Black/African American students, indicating that the effects were consistent across racial/ethnic groups. For fifth-grade students across all benchmark levels, the Economically Disadvantaged group showed greater improvement than the non-Economically Disadvantaged group during the 2021-2022 school year. Importantly, gains were similar for each economic status for fourth and fifth-grade students that were 2+ grade levels behind.



Educators around the country know that the pandemic threw school leaders and teachers into unprecedented situations. During Year 1 of the study, teachers needed to create their own materials and leverage what they had that could be completed remotely (e.g., virtual Read Alouds). In Year 2, teachers had scripted lessons and digital presentations that could be delivered in-person or remotely.

## **Conclusion & Implications for Future Research**

This report provides evidence that MSRC instruction leads to gains for fourth and fifth-grade students across reading ability subgroups. Future research will focus on studying the impact of the 95 Portfolio on treatment and control students over the course of one school year. The learning conditions varied each year during the pandemic, so assessing efficacy within the same year will provide clearer insights. The Wicomico schools cover a particular geographic and demographic profile so that future research could examine populations in different settings and demographic profiles.

When evaluating the efficacy of a new product, it is important to note that the first full year of implementation for any new educational program can be challenging. Changing the way a school teaches reading by using a new structured Science of Reading approach can be overwhelming and a significant adjustment for teachers and learners. Therefore, assessing efficacy across multiple years allows time for the learning curve to level out and provides clearer insight into a new product's long-term use and benefits. Aligning pedagogy and terminology across Tiered support also promotes a more seamless transition for the learner (i.e., reducing the cognitive load and increasing comfort with the lesson design and routines), potentially leading to increased access to long-term learning. Future research will explore whether, after multiple years of use, instructors improve their pace of instruction and increase their understanding of the content they are teaching, which may accelerate student learning.



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## Appendix

*Table A1. Grades 4-5 Year 2 results by racial/ethnic group*

Grade	2+ GL Below Cohort	Fall 2021 Mean Score	Change in Scale Score	SD	Significance
4th	Year 2 Black Students	497	22.5	41.5	n/s
4th	Year 2 White Students	532	27.3	24.5	
5th	Year 2 Black Students	522	19.9	33.6	n/s
5th	Year 2 White Students	564	19.2	23.1	

Note:  $P < .05 = *$ ,  $P < .01 = **$ , and  $P < .001 = ***$ , above.

*Table A2. Grades 4-5 Year 2 results by racial/ethnic group (2+ Grade Levels Below Grade Level only)*

Grade	2+ GL Below Cohort	Fall 2021 Mean Score	Change in Scale Score	SD	Significance
4th	Year 2 Black Students	455	24.7	54.4	n/s
4th	Year 2 White Students	451	31.8	26.5	
5th	Year 2 Black Students	492	24.3	38.5	n/s
5th	Year 2 White Students	501	23.8	28.1	

Note:  $P < .05 = *$ ,  $P < .01 = **$ , and  $P < .001 = ***$ , above.

Table A3. Grades 4-5 Year 2 results by Economically Disadvantaged (all students)

Grade	Cohort	Fall 2021 Mean Score	Change in Scale Score	SD	Significance
4th	Not Economically Disadvantaged	540	23.3	24.7	n/s
4th	Economically Disadvantaged	503	26.8	34.8	
5th	Not Economically Disadvantaged	571	15.4	33.5	P = .04 (Economically disadvantaged showed greater improvement in the 2021-2022 school year)
5th	Economically Disadvantaged	529	21.1	29.1	

Note: P < .05 = \*, P < .01 = \*\*, and P < .001 = \*\*\*, above.

Table A4. Grades 4-5 Year 2 results by Economically Disadvantaged (2+ grades below Grade Level)

Grade	Cohort	Fall 2021 Mean Score	Change in Scale Score	SD	Significance
4th	Not Economically Disadvantaged	451	24.8	27.0	n/s
4th	Economically Disadvantaged	456	29.8	45.7	
5th	Not Economically Disadvantaged	506	19.6	52.9	n/s
5th	Economically Disadvantaged	492	25.0	33.7	

Note: P < .05 = \*, P < .01 = \*\*, and P < .001 = \*\*\*, above.



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