



Findings of Root Cause Analysis for Comprehensive Support and Improvement Schools

Fort Worthington Elementary & Middle School

September, 2019



COLLEGE OF
EDUCATION

CENTER FOR EDUCATIONAL
INNOVATION AND IMPROVEMENT



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This report was prepared by the University of Maryland College Park Center for Educational Innovation and Improvement at the College of Education and in partnership with the Bowie State University College of Education and the

Morgan State University School of Education & Urban Studies. The Root Cause Analysis process was facilitated by Keniq Coney and Dr. Chloe Marshall, who also co-authored this report.

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I. INTRODUCTION

The purpose of this report is to share the outcomes of a Root Cause Analysis (RCA) conducted to support Fort Worthington Elementary/Middle School in identifying underlying causes of school performance problems. The report provides an overview of the RCA process, school profile, problem statement, root cause analysis and recommendations to address the root causes.

The Maryland Every Student Succeeds Act (ESSA) Consolidated State Plan requires schools that have been identified for comprehensive support and improvement (CSI) engage in a root cause analysis process facilitated by a third party. CSI schools are the lowest achieving five percent of Title I schools; high schools that do not graduate one third or more of their students; or schools that have federal school improvement grants (SIG). Fort Worthington Elementary/Middle School was identified as a CSI school as one of the lowest achieving 5 percent of Title I schools. Outcomes of the root cause analysis must be used to inform the development of intervention plans to improve school performance.

CSI schools that were identified in the 2018-2019 school year have three years to exit CSI status. CSI school leaders will receive a leadership coach to support the development and implementation of the intervention plan. CSI principals are also required to participate in the Leading for School Improvement Institute which provides customized professional learning experiences to support school improvement. CSI principals are also required to engage in monitoring visits by the Maryland State Department of Education (MSDE) to ensure that progress is being made toward school improvement goals.

MSDE established a memorandum of understanding with the University of Maryland College Park to facilitate the RCA process. The University of Maryland College Park collaborated with the American Institutes for Research (AIR) to develop RCA tools and train field teams. Field teams consisted of researchers, data analysts, and education practitioners from Morgan State University, Johns Hopkins University, Bowie State University, and other organizations. Field team members worked with all CSI schools to go through an RCA process. MSDE will support each school to engage in a long-term continuous improvement process that includes RCA analyses, recommended interventions, and evaluations of employed interventions. As part of this process, CSI schools were first required to go through a needs-assessment process that was used to drive the RCA work.

I. INTRODUCTION

RCA Process for CSI Schools

A Root Cause Analysis Facilitator Guide was developed to promote consistency in the root cause analysis process. The Facilitator Guide contains protocols designed to engage school leaders and stakeholders in identifying a specific problem and prioritizing root causes for the problem.

There was a four-step process used to facilitate the root cause analysis:

1. Craft a Problem Statement Based on Data
2. Brainstorm Causal Factors
3. Analyze Underlying Causes to Identify Root Causes
4. Prioritize Root Causes for Intervention

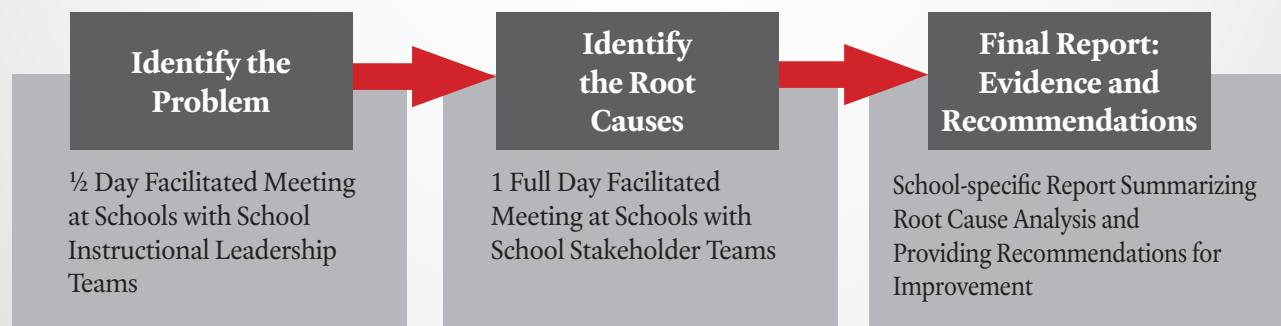
The root cause analysis process translates the successes and challenges identified through the CSI needs assessment into priorities to inform actionable improvement planning. The work with schools was staged in three steps: 1) identify

the problem; 2) identify the root causes; 3) draft a school report with recommendations for improvement.

First, the RCA team worked with school leadership teams to craft a problem statement in a half-day meeting. Using the available school, school system, and state data, the school team selected a problem that relates to their CSI status and provides a direction for the root cause analysis.

Second, the facilitators returned to the school for a full-day meeting with the school's stakeholder team to better understand the root causes of the problem. Once the stakeholders worked through the process of determining the root causes, they prioritized those root causes based on importance, feasibility, and alignment to CSI status.

As a third and final step, the RCA teams created these school-specific reports with recommendations for addressing the problem and root causes in improvement planning.



I. INTRODUCTION

An RCA starts with asking the question: What problem do we face that, if solved or mitigated, would most effectively lead to our desired outcomes (in this case significant improvement in student outcomes that would lead to the school being removed from CSI status)? This “Problem Statement” is then studied and interrogated by a team of stakeholders through the RCA process that answers questions such as:

- Why do we get these outcomes?
- Who are the people involved in this problem?
- What policies, procedures, or rules contribute to this problem?
- What resources are currently engaging with this problem?
- What environmental issues impact this problem?

This process led to a small number of “root causes” to the problem designed to help school stakeholders design strategies and programs that are more likely to lead to significant improvement for students. In addition, the process will include conducting research on the problem and prioritized root causes and recommending evidence-based strategies for improvement.

II. SCHOOL PROFILE

School Name: Fort Worthington Elementary/Middle School
 2710 E. Hoffman St, Baltimore, MD 21213
 (410) 396-9161

Total Teachers: 38

Student Demographics

Total Students	Asian	Black African Americans	Hispanic/Latino	White	Other	% Economically Disadvantaged	% English Learners	% Students with Disabilities
684	<10	655	11	<10	<10	78.5%	<5%	13.87%

Fort Worthington Elementary School MSDE School Report Card Profile for Prekindergarten-5

Academic Progress		School Quality and Student Success		Academic Achievement		Progress in Achieving English Language Proficiency	
Student Growth Percentile in Math	21	Students Not Chronically Absent	61%	% Proficient in Math	1.9%	% English Learners Making Progress Toward Learning English	N/A
Student Growth Percentile in ELA	39			Average Performance Math	1.5		
Credit for Well Rounded Curriculum N/A	38.7%	Access to Well Rounded Curriculum	100%	% Proficient in ELA	4.3%		
				Average Performance ELA	1.7		
Earned Points:	7.9/30	Earned Points:	11.5/25	Earned Points:	3.6/20	Earned Points:	N/A
Total Earned Percent:				32%			

To view this school's full report card, visit www.mdreportcard.org

II. SCHOOL PROFILE

Forth Worthington Middle School MSDE School Report Card Profile for 6-8

Academic Progress		School Quality and Student Success		Academic Achievement		Progress in Achieving English Language Proficiency	
Student Growth Percentile in Math	39	Students Not Chronically Absent	54.1%	% Proficient in Math	2.6%	% English Learners Making Progress Toward Learning English	N/A
Student Growth Percentile in ELA	40			Average Performance Math	1.6		
Credit for Well Rounded Curriculum N/A	52.8%	Access to Well Rounded Curriculum	98.1%	% Proficient in ELA	4.1%		
				Average Performance ELA	1.7		
Earned Points:	11.1/28	Earned Points:	10.8/25	Earned Points:	3.6/20	Earned Points:	N/A
Total Earned Percent:				23%			

III. PROBLEM STATEMENT

Description of the Process

The first step in the RCA process was to convene a half-day meeting facilitated by a two-member RCA team. Fort Worthington Elementary/Middle School convened on April 25, 2019 for day one of the RCA process. The convening included the school leadership team, consisting of a local school system leader (i.e., principal supervisor, school improvement lead) and other key school staff. The primary goal of this meeting was to craft a “problem statement” that would drive the RCA. A Problem Statement can be defined as a statement describing a situation, issue, barrier, impediment, or challenge that a school must address to significantly improve student outcomes related particularly to those outcomes that led to the school being placed on the CSI list.

The goals of the first day were as follows: 1) to determine a problem statement to drive the analysis of the root causes, and 2) to identify stakeholders for day two of the RCA.

The school leadership team was tasked with examining several sources of data and formulating a problem statement to guide the RCA process on day one. They used the following sources of data to understand their current reality as a CSI school: 2018 Maryland State School Report Card, MSDE CSI Needs Assessment Report, the school improvement plan, and survey data. The team consisted of twelve participants, including both school-based and local school system representatives. In addition to the school leadership team, an observer from AIR attended the RCA process on the first day (see Appendix A for a full list of participants).

Problem Statement Criteria

Participants arrived at a problem statement by examining how CSI schools were identified; by using data to understand why the school received

CSI status; by organizing data trends into themes; by evaluating the feasibility of addressing those themes; and by prioritizing addressable themes to identify the RCA area of focus. The problem statement was crafted based on the following criteria:

1. *How important is the problem to addressing our needs?*

Importance is determined by whether student outcomes will be improved, teacher efficacy is increased, and/or organizational systems will be improved.

2. *How feasible is it to address this problem?*

Feasibility is defined by the availability of adequate resources, staff, and capacity, and whether there is sufficient support and buy-in.

3. *How aligned is the problem to our needs?*

The problem statement should be related to the reason the school was identified as a CSI school. Also the school should be able to address the problem and its root causes by the effective selection and implementation of evidence-based practices.

Day One Summary

On day one, the school leadership team reviewed and analyzed several data sources, focusing on the biggest gaps in student achievement and performance across grade levels. After reviewing the data, they identified some commonalities across grade levels, resulting in key takeaways and themes that emerged during the data interpretation segment of the RCA process. Initially, the team looked at the state assessment data by grade level, and then compared it with students' iReady® data to unpack student performance during the school year. Through this analysis phase, the team began asking deeper questions. Using a Questioning Data Protocol,

III. PROBLEM STATEMENT

the school leadership team responded to two critical questions: What do I see in the data? and What questions do I have about what I see? As

a collective team, the school leadership team identified some key takeaways and developed themes across the data.

Key Data Themes

Data Source	Key Takeaways
MSDE CSI Needs Assessment Report	<ul style="list-style-type: none"> Students in grades 3-8 are performing below proficiency.
Needs Assessment: iReady (student achievement and growth for ELA and mathematics)	<ul style="list-style-type: none"> Across grades 3-8, there is an increase in the percentage of students performing on grade level at the end of the school year in both ELA and mathematics. The percentage of students who are above or on grade level at the end of the year significantly decreased from third grade to eighth grade. ELA: Grade 3 (19.75 percent) and Grade 8 (9.09 percent) Mathematics: Grade 3 (7.06 percent) and Grade 8 (6.67 percent)
Needs Assessment (Dynamic Indicators of Basic Early Literacy Skills [DIBELS])	<ul style="list-style-type: none"> Kindergarten had the highest percentage of students (57.1 percent) above or on grade level for grades K-2.
Needs Assessment (DIBELS and iReady)	<ul style="list-style-type: none"> In grade two, there is a significant decrease in the percentage of students at the beginning of the year (52.4 percent) to the end of the school year (43.1 percent) who are above or on grade level.

Themes Across Data Sources (Topics) (1 being highest priority)	Ranking
When students leave third grade, their ELA proficiency decreases as students transition from grade to grade.	1
In grades one and two, the percentage of students reading below grade level increases from beginning of year to end of year, as measured by DIBELS.	2
Chronic absenteeism is a trend that ultimately affects the ability of students to gain instruction and support because they are not present.	3

III. PROBLEM STATEMENT

Final Problem Statement

In grades 3-8, 93 percent or more of students did not meet proficiency on the 2018 state assessment for ELA.

Evidence Base for Problem Statement

This section represents a brief research summary of the evidence related to the significance and/or impact of the problem statement identified above.

According to a study conducted by the US Department of Education and the National

Institute of Literacy, 32 million adults in the US cannot read (Kirsch, Jungeblut, Jenkins, & Kolstad, 2002). That number is 14 percent of the population. Twenty-one percent of adults in the US read below a fifth-grade level, and 19 percent of high school graduates cannot read. Fort Worthington crafted a problem statement that is relevant in our society today, and a plethora of research is available on students who struggle with literacy. Students in Baltimore City scored significantly lower in reading and mathematics compared to children in other urban areas. According to the National Assessment of Educational Progress, only 13 percent of students in grades four and eight Baltimore City are considered proficient or advanced in reading

IV. ROOT CAUSE ANALYSIS OF THE PROBLEM STATEMENT

Day Two Summary

Fort Worthington Elementary/Middle School convened on May 2, 2019 for day two of the RCA process. Day two was devoted to working with the school's stakeholder team to identify and prioritize the root causes of the problem so that the causes could be addressed in the school's improvement planning efforts.

Stakeholders began the day by reviewing the problem statement developed by the instructional leadership team on day one. Following this review, they comprehensively brainstormed causal factors that contributed to the problem using a "Fishbone" activity. Individual causal factors were then organized into themes, and a causal factor statement was crafted for each theme. Using the "5 Whys Activity," stakeholders were encouraged to dig deeper into the causal factor statements by asking "why" questions in order to arrive at underlying causes. Underlying causes were then collectively ranked in order to arrive at a prioritized list of root causes.

Specifically, the goals for day two included:

- Determine factors contributing to the problem statement.
- Identify underlying causes of the problem and determine which underlying causes are primary "root" causes.
- Prioritize the root causes for the importance of impacting student outcomes and the feasibility of implementing strategies to address them.

Sixteen school-based and community members were present for day two. Of the sixteen participants, two observers were from AIR. During this phase of the RCA process, the stakeholder team engaged in three major steps. At the onset of the meeting, the team reviewed their problem statement by discussing the

data sources that were analyzed, as well as key processes and activities that occurred on the first day. During the first step, the team brainstormed causal factors that contributed to their problem statement. In the second step, the stakeholder team analyzed underlying causes and identified root causes. For the final step of the RCA process, the team prioritized root causes for intervention, which resulted in ten agreed-upon recommendations.

With a laser-like focus on their problem statement, the team engaged in purposeful and productive conversations to unpack why this problem is their current reality, and what they envisioned for the future. Stakeholders spent a significant amount of time discussing key issues around teacher efficacy, professional development, social and emotional issues, teacher skillfulness and capacity, culture and climate, and internal school systems. As a result of engaging in such an in-depth conversation, the team could analyze if any of these key issues were the same or at least similar. Based on the criteria used for prioritizing the problem statement, the stakeholder team decided to focus on what was in their locus of control.

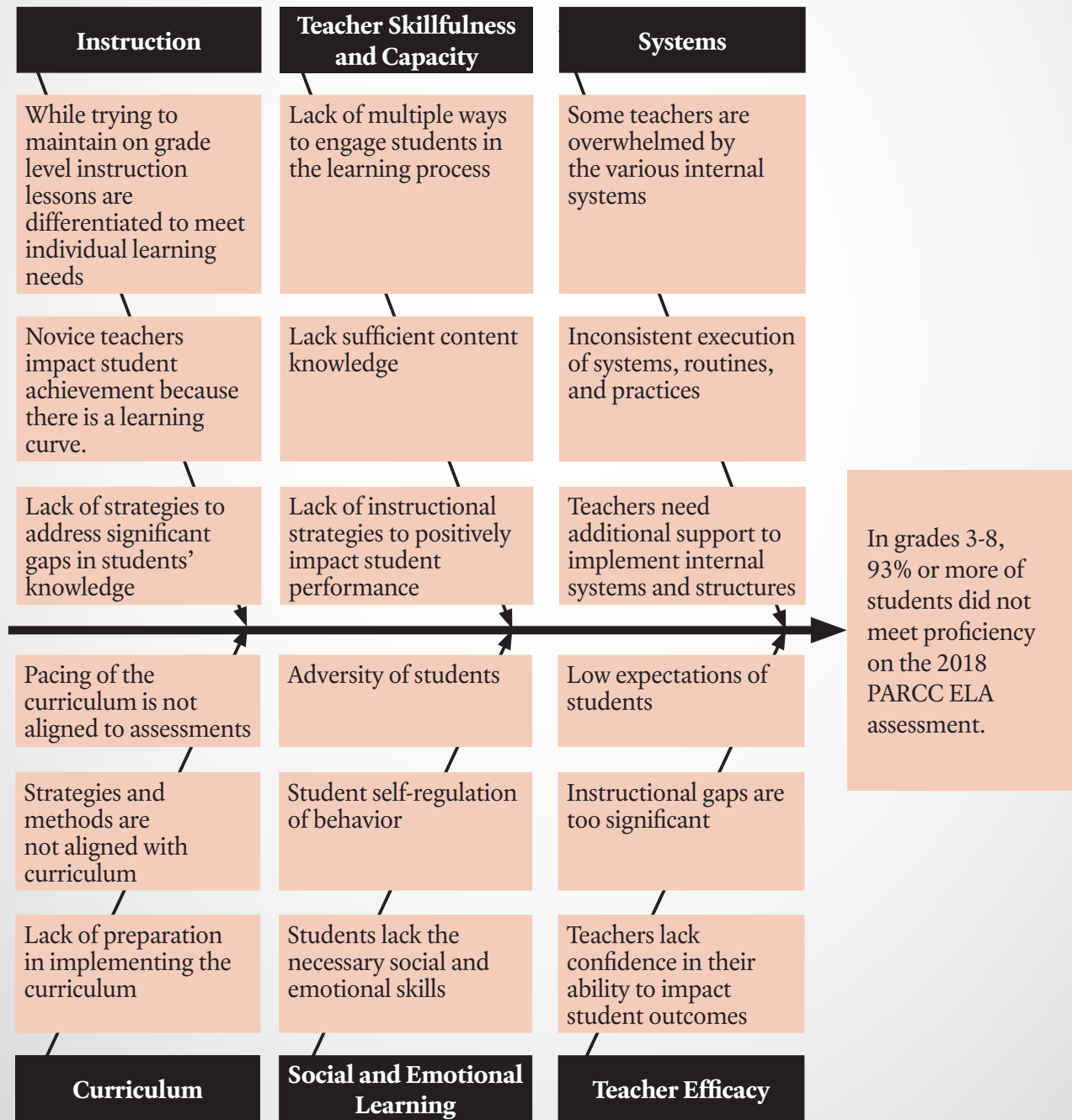
The entire stakeholder team brainstormed possible factors contributing to the problem. Each team member was tasked with brainstorming as many possible causes as possible within a five minute time frame. After participants independently brainstormed causal factors, they then shared their causal factors with the entire group in several rounds. In each round, participants read only one causal factor until all possible causes were read by round four. The same or similar causes were grouped accordingly and discussed throughout this process. At the end of this activity, the stakeholder team worked collaboratively to group similar causal factors into categories. Six themes emerged based on how the participants grouped their causal factors.

IV. ROOT CAUSE ANALYSIS OF THE PROBLEM STATEMENT

Casual Factors

The “Fishbone” diagram represents the stakeholder group’s initial assessment of all of the individual factors contributing to the existence or recurrence of the problem statement.

Fort Worthington Elementary and Middle School Casual Factors



IV. ROOT CAUSE ANALYSIS OF THE PROBLEM STATEMENT

an area of need. Most instructional interventions focus on subjects like reading or mathematics. School-based interventions are also used to track and monitor student progress over time. The term “academic intervention” is also referred to as “instructional intervention.” The process of using more and more intense interventions is the basis for response to intervention (RTI). RTI is a commonly used framework in schools to address students who have gaps in their learning. It is a multi-tiered approach to the early identification and support of students with learning and behavior needs. Student progress is monitored at

each stage of the RTI model to ensure students are on track with their learning. Teachers are able to make needed adjustments to instructional interventions and strategies. Using a multi-tiered system of supports (MTSS), schools can identify students early who are at-risk of poor learning outcomes. Research suggests that implementing an MTSS can impact student learning outcomes (Thomas & Dykes, 2011). When learning deficits are addressed in a timely manner through MTSS/RTI and with fidelity, the disparities in achievement gaps begin to decrease.

V. RECOMMENDATIONS FOR IMPROVEMENT

Brainstormed Ideas for Improvement Planning from Stakeholders

At the conclusion of day two, the stakeholders had a brief opportunity to brainstorm ideas

and strategies that might help to address the root causes identified. This brainstorming activity asked participants to list any good ideas they have. These ideas were not prioritized or identified as formal recommendations to the school.

Prioritized Root Cause:

Teacher Efficacy: Low rates of teacher efficacy in grades 3-8 negatively impact instruction and student assessment performance.

Recommendations for Improvement From the Stakeholders at Fort Worthington Elementary/Middle School

- Engage students in a growth mindset.
- Focus on creating and implementing a positive school culture.
- Celebrate small wins. (Recognize student growth.)
- Allow students to celebrate teachers.
- Conduct peer observations.
- Conduct book studies on teacher efficacy.
- Differentiate professional learning.

Recommendations for Evidence-Based Improvement

Final recommendations for this report have been developed by the University of Maryland College Park in consultation with RCA facilitators and leaders at MSDE. Recommendations were developed using the following process:

- Reviewing the ideas, notes, and stakeholder perspectives gathered throughout the Root Cause Analysis process;
- Conducting a scan of the research literature related to the problem statement and prioritized root causes identified throughout the process. While a comprehensive research analysis was outside the scope of this project, the team reviewed research using

the standards of evidence model outlined in the Every Student Succeeds Act (ESSA) to offer research that had moderate or strong evidence of effectiveness (Level 2 or Level 1 on the ESSA framework);

- Compiling, organizing and categorizing over 150 recommendations submitted by UMD/RCA facilitators.

These recommendations are offered by the University of Maryland College Park in consultation with MSDE. They represent only a portion of the potential strategies and interventions that will become a part of the school's three-year improvement plan developed in concert with the MSDE Title I office.

V. RECOMMENDATIONS FOR IMPROVEMENT

RECOMMENDATION

Four Domains Domain of Rapid School Improvement¹

Maximize professional learning focused on planning, instruction, and improving learning conditions for students.

*Talent
Development*

Establish or significantly strengthen a school-wide cycle of professional learning – coaching, observations, and team planning – that includes an aligned focus across core instructional activities. Several studies link teacher professional learning with improvements in instruction and quality of learning environments (Vescio, Ross, & Adams, 2008). Professional learning opportunities are most effective when they are part of coherent school-wide efforts that link content, assessments, and reflection, rather than episodic professional workshops (Akiba & Liang, 2016). Two effective professional learning strategies include professional learning communities and job-embedded professional learning.

*Instructional
Transformation*

Professional Learning Communities: Teachers need time spent planning and learning with colleagues in collaborative planning time and/or professional learning communities (PLCs) that are focused on teaching and learning not on administrative or organizational demands. Research shows that PLCs are most successful when they are designed and supported with specific attention to leadership, group dynamics, trust, and respect (Vangrieken, Meredith, Packer, & Kyndt, 2017). PLCs can form around topics that teachers can explore together, plan for, and build upon together using peer observations and deeper capacity-building on areas of need, such as social emotional learning or trauma-informed teaching. Authentic PLCs include the following features:

- Dedicated time for the PLC
- Teacher-led and based on specific needs of students
- Supported by school leaders with training and development activities

Job Embedded Professional Learning: Research emphasizes the importance of professional learning that emphasizes explicit strategies for conducting active teaching, assessment, observation, and reflection rather than just abstract discussions (Darling-Hammond & Richardson, 2009).

V. RECOMMENDATIONS FOR IMPROVEMENT

RECOMMENDATION

Four Domains Domain of Rapid School Improvement¹

Build teacher self-efficacy through development of teacher leaders and school-wide peer observations.

*Talent
Development*

During the RCA process, the team detailed that several staff members are serving in some type of leadership role. Research suggests that when teachers are invested in the culture and climate, significant changes can occur. Bolin (1989) states that “teacher empowerment is defined as investing teachers with the right to participate in the determination of school goals and policies and to exercise professional judgment about what and how to teach” (p. 82). Self-efficacy can be built by continuing to empower staff through various leadership roles and shared decision-making (Goddard, 2002). Encouraging teachers to serve as mentor teachers and team or content-based leaders is also effective. Teachers should facilitate or lead PLC sessions to take ownership in teaching instructional strategies and techniques.

At the beginning of the school year, an internal system for school-wide peer observations should be implemented. In doing so, the school will have an environment of continuous feedback, reflective dialogue, and ongoing support for all teachers at Fort Worthington Elementary/Middle School. This key recommendation will help cultivate teachers’ collective efficacy. Research suggests that teachers tend to have a significant impact on changing the instructional trajectory in a school when observed by a colleague (Richardson, 2000). Research also suggests that not only new or struggling teachers should have a mentor, but all teachers benefit from ongoing peer observations. According to Richardson (2000), “(P)eer observation provides a way for every faculty member – regardless of rank, tenure, or experience – to continue to learn from peers, both senior and junior, through observation.”

¹ The MSDE uses the Center on School Turnaround at WestEd’s Four Domains for Rapid School Improvement: A Systems Framework as a framework for continuous improvement. The framework identifies four areas as central to rapid and significant improvement: turnaround leadership, talent development, instructional transformation, and culture shift. The recommendations in this report are aligned to the four domains as a way to organize and frame the improvement efforts. For more information: <https://centeronschoolturnaround.org>.

V. RECOMMENDATIONS FOR IMPROVEMENT

RECOMMENDATION

Four Domains
Domain of Rapid
School Improvement¹

Provide strong literacy instruction in ELA courses and across the curriculum.

*Instructional
Transformation*

Research suggests that for students to become fluent readers, they need to build both foundational reading skills and comprehension skills.

Key components for improving reading skills include:

- Explicit instruction of academic language
- Instruction on decoding words, word parts, and letter sounds
- Reading multiple sentences daily
- Use of reading comprehension strategies
- Use of textual organizational structures
- Engaging and context-rich setting for reading (National Reading Panel, 2000; Foorman et al., 2016; Shanahan et al., 2010)

The instruction of reading must extend beyond the language arts classroom or lesson. Teaching students the function and structure of language as they are used in multiple content areas and domains is also part of a robust literacy program. Although this focus has typically been concentrated on the secondary level, building an early foundation for literacy in the content areas is important for future success in multiple subjects (Moss, 2005).

V. RECOMMENDATIONS FOR IMPROVEMENT

RECOMMENDATION

Four Domains Domain of Rapid School Improvement¹

Provide supplemental academic support during school hours.

Instructional Transformation

Academic interventions for students who have been identified as below grade level can take various forms (e.g., the duration, group size, leadership, etc.). Meta-analyses of interventions show that sometimes they vary in their impact for each student, and other times these interventions work equally well for all students. Reading interventions administered to struggling readers in grades K-3, all of which included at least 100 thirty-minute sessions, showed that there was a slightly higher effect in the interventions that were one-on-one than those that included two or more students. A slightly higher effect was observed for interventions that involved two to three students compared to those that were administered to groups of three to six (Schneider, Roth, & Ennemoser, 2000; Wanzek & Vaughn, 2007). Wanzek and Vaughn (2007) also reported that students made greater gains when interventions were administered to them by first grade rather than those interventions that were administered in second or third grade. In contrast, Wanzek and Vaughn's meta-analysis showed that interventions that were more standardized, and included set curricula, versus those that were less standardized and included individualized curricula, made equally positive impacts on student performance. The researchers, therefore, concluded that expert advice in decision-making, provided by special educators, school psychologists, and content specialists, is a key component of choosing an intervention that fits the local context and individual student's needs. In their meta-analysis of reading interventions in grades K-3 for students at the Tier 2 RTI level (those who are at-risk, but not yet significantly behind) that met for twenty to forty minutes three to five times a week, Wanzek et al. (2015) reported that no statistical differences were captured in the effect of interventions administered by various different school staff and volunteers.

These findings suggest that effective intervention can be administered by various personnel, and, again, expert advice should be consulted. Though positive academic gains can be achieved through various intervention forms, greater teacher satisfaction and student progress were found to be the result of collaborative service models. In these models, teachers work closely with those administering interventions, in contrast to interventions only the teachers administer or those only administered by support staff in independent, pull-out sessions (Marston, 1996). Taken together, these findings suggest the importance of involving multiple stakeholders, including the lead teacher, support staff, additional personnel administering interventions, and expert advice, in the decision-making process for academic interventions that are designed based on individual student needs and local school contexts.

VI. CONCLUSION AND NEXT STEPS

Collaboratively with the Local School System (LSS) and stakeholders, Comprehensive Support and Improvement (CSI) school teams will develop intervention plans that identify SMART (Specific, Measurable, Attainable, Relevant, Timely) intervention goals with measurable annual outcomes and progress indicators that will guide schools toward meeting annual targets and exit criteria in three years. The outcomes of the root cause analysis must be used to inform the development of the SMART intervention goals and identification of evidence-based

strategies included in the intervention plan. Any evidence-based strategy must meet the Every Student Succeeds Act (ESSA) evidence requirements (level 1, 2, or 3). Intervention Plans will be approved by the school, LSS, and the Maryland State Department of Education (MSDE), and monitored annually by staff from the LSS and the MSDE. Additional information and resources are available on the MSDE Resource Hub. <https://www.marylandresourcehub.com/>

APPENDICES

Appendix A: List of Stakeholders

	Name	Position
Day 1 April 25, 2019	Monique Debi	<i>Principal</i>
	Patrick McDonald	<i>Assistant Principal</i>
	Renee Hayes	<i>Middle School Mathematics Teacher</i>
	Lauren Lloyd	<i>First Grade Teacher/Primary Lead</i>
	Farron George	<i>Teacher, Baltimore Teachers Union (BTU) Representative, Technical Lead</i>
	Justin Hunt	<i>Community School Director</i>
	Natalee Peoples	<i>Local Education Agency Mathematics Content Support</i>
	Melanie Watkins	<i>Local Education Agency Literacy Content Support</i>
	Mack Jones	<i>School Turnaround Specialist</i>
	A. Christine Benn	<i>Intern</i>
	Erica Gravette	<i>Title I Specialist</i>
Catherine Jacques	<i>AIR Observer</i>	

	Name	Position
Day 2 May 2, 2019	Monique Debi	<i>Principal</i>
	Erika Parker	<i>Early Childhood Community Partner</i>
	Patrick McDonald	<i>Assistant Principal</i>
	Councilwoman Shannon Sneed	<i>City Councilwoman</i>
	Renee Hayes	<i>Middle School Mathematics Teacher/FAMA Lead</i>
	Lauren Lloyd	<i>First Grade Teacher/Primary Lead</i>
	Farron George	<i>Teacher, BTU Representative/Technical Lead</i>
	Justin Hunt	<i>Community School Director</i>
	Natalee Peoples	<i>Local Education Agency Mathematics Content Support</i>
	Melanie Watkins	<i>Local Education Agency ELA Content Support</i>
	Mack Jones	<i>School Turnaround Specialist</i>
		<i>Student</i>
	Erica Gravette	<i>Title I Specialist</i>
	Jessica Tzucker	<i>The Achievement Network Coach</i>
	Catherine Jacques	<i>AIR Observer</i>
Courtney Rowland	<i>AIR Observer</i>	

APPENDICES

Appendix B: Bios of Facilitators

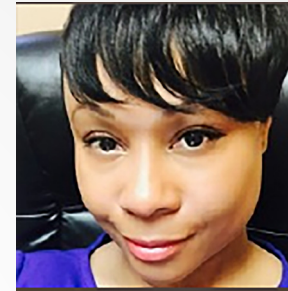
Keniq Coney, Executive Coach and Leadership Advisor, coaches and develops school system leaders, principals, and leadership teams across the country to transform practice and achieve dramatic student achievement gains. Coney transitioned to executive and leadership coaching from the New Leaders Washington, DC, city team where she oversaw the New Leaders-DC program continuum and trained as a resident principal. Prior to joining New Leaders, Coney served as the Senior Director of Teacher Effectiveness, at a large charter management organization with over twenty-eight schools serving roughly 12,000 students, throughout the Dallas-Fort Worth metropolitan area. In this capacity, she led the teaching and learning department in the management of network initiatives in curriculum design and assessment, instructional coaching, International Baccalaureate authorization, and implementation an alternative certification program for teachers. Immediately prior, Coney served as Regional Manager of Academic Achievement and Innovations, where she designed, developed, and managed educational programs and policies for teachers and administrators at three schools to improve teacher effectiveness in increasing student performance and to integrate Race to the Top and Common Core curriculum initiatives.



Coney gained much of firsthand experience and knowledge while serving as a school leader in Washington, DC, and in teaching special education in Texas and California. These positions informed her career in leadership development. She served in various roles at Teach for America, including teacher, advisor, and curriculum coordinator in San Jose, New York, Los Angeles, and Philadelphia. In her spare time, Coney teaches a graduate level transformational leadership and teaching course at the Johns Hopkins University School of Education.

Coney holds a Master of Science degree in Administration in Educational Administration degree from Trinity University and a Master of Arts degree in Special Education from Loyola Marymount University. She earned her Bachelor of Science degree in Communication Disorders at the University of Houston.

Jocelyn Odón is a transformational leader and educator with more than twenty years of experience as a creative problem solver, curriculum leader, school administrator, and a strategic planner for school improvement in both traditional and public charter schools. She has extensive experience in cultivating a school's academic culture and climate through high-quality professional development.



Marshall has served in several different capacities throughout her career as a classroom teacher, Title I instructional coach, principal, regional director, and educational consultant. Her responsibilities and expertise include systems change efforts, curriculum and instruction, design and evaluation of professional development, and school improvement initiatives. With ten years of school administration experience, she has served in both traditional and charter public schools. As a turnaround principal, she focused on transforming a school's culture and climate by creating high-quality, professional learning teams. In 2011, Marshall was recognized by the Washington Post as the recipient of the Distinguished Educational Leadership Award. Marshall is committed to promoting the learning and success of all students by creating learning environments where all stakeholders are empowered to do the necessary work for children.

Marshall holds a Bachelor of Science degree in Elementary Education from the University of Memphis (1997), a Master of Education degree in Educational Leadership and Policy Studies from the University of Memphis (2001), and was awarded a Doctor of Education in Educational Leadership from Union University (2005).

APPENDICES

Appendix C: Citations of research

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117-148.

Cantrell, S. C., & Hughes, H. K. (2008). Teacher efficacy and content literacy implementation: An exploration of the effects of extended professional development with coaching. *Journal of Literacy Research*, 40(1), 95-127.

Goddard, R., Hoy, W., & Woolfork Hoy, A. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *American Education Research Association*, 33(3), 3-13.

Kirsch, I. S., Jungeblut, A., Jenkins, L., & Kolstad, A. (2002). *Adult literacy in America: A first look at the findings of the national adult literacy survey*. Washington, DC: National Center for Education Statistics, US Department of Education Office of Educational Research and Improvement.

Moss, B. (2005). Making a case and a place for effective content area literacy instruction in the elementary grades. *The Reading Teacher*, 59(1), 46-55.

National Center for Educational Statistics. (2018). *National assessment of educational progress [NAEP data explorer]*. Washington, DC: Institute of Education Sciences, US Department of Education. Retrieved from <https://nces.ed.gov/nationsreportcard/data/>

Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, US Department of Education.

Thomas, S. B., & Dykes, F. (2011). Promoting successful transitions: What can we learn from RTI to enhance outcomes for all students?. *Preventing School*

Failure: Alternative Education for Children and Youth, 55(1), 1-9.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80-91.

INTERVENTION CITATIONS

Akiba, M., & Liang, G. (2016). Effects of teacher professional learning activities on student achievement growth. *The Journal of Educational Research*, 109(1), 99-110.

Bolin, F. S. (1989). Empowering leadership. *Teachers College Record*, 19(1), 81-96.

Darling-Hammond, L., & Richardson, N. (2009). Research review / teacher learning: What matters?. *Educational Leadership*, 66(5), 46-53.

Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). *Foundational skills to support reading for understanding in kindergarten through 3rd grade* (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, US Department of Education.

Goddard, R. (2002). Collective efficacy and school organization. A multilevel analysis of teacher influence in schools. *Theory and Research in Educational Administration*, 1, 169-184.

Marston, D. (1996). A comparison of inclusion only, pull-out only, and combined service models for students with mild disabilities. *Journal of Special Education*, (30)2, 121-132.

APPENDICES

INTERVENTION CITATIONS

National Reading Panel, & National Institute of Child Health and Human Development. (2000). Report of the national reading panel: *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute of Child Health and Human Development, National Institutes of Health.

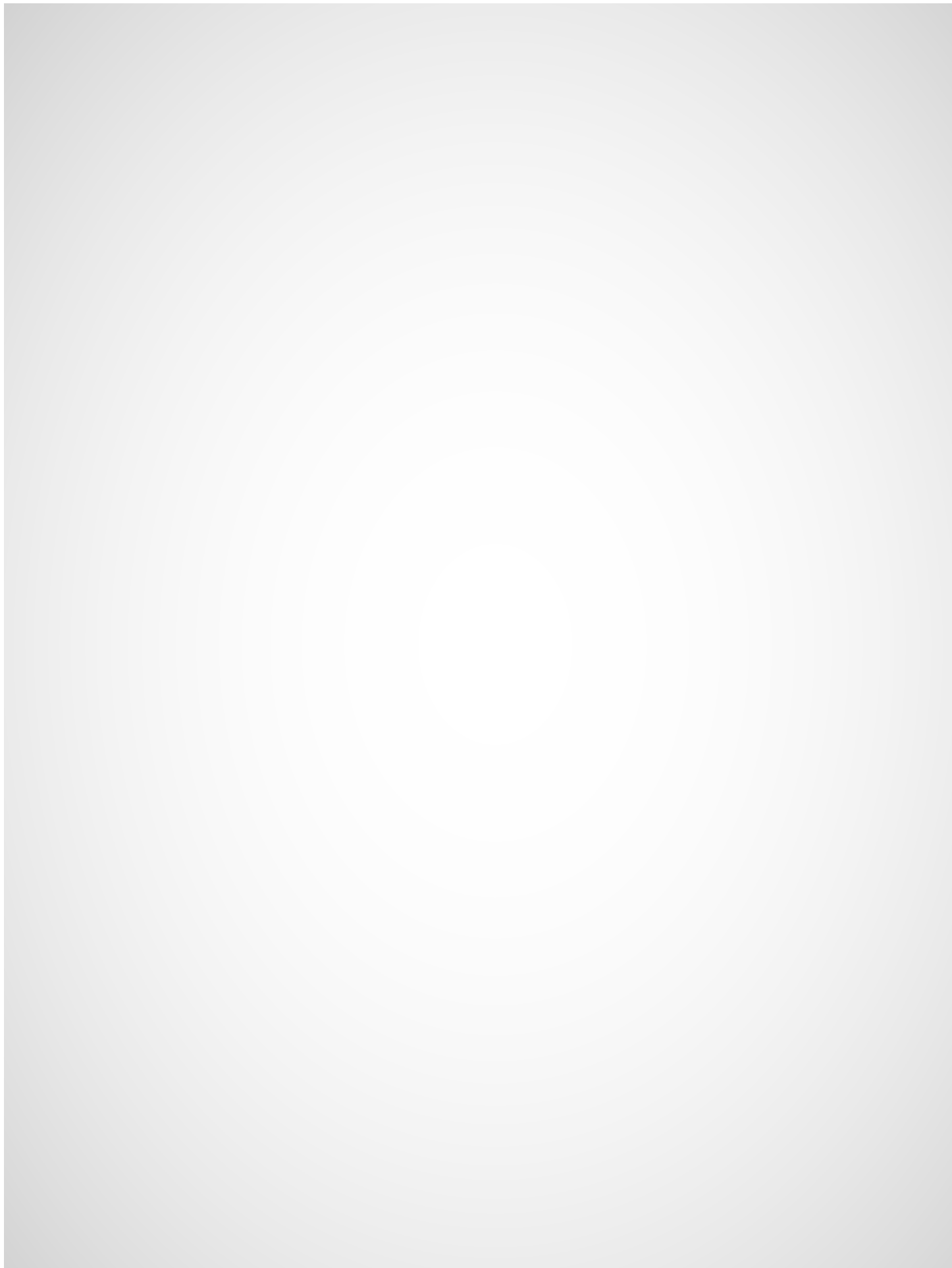
Richardson, M. O. (2000). Peer observation: Learning from one another. *Thought and Action*, 16(1), 9-20.

Vangrieken, K., Meredith, C., Packer, T., & Kyndt, E. (2017). Teacher communities as a context for professional development: A systematic review. *Teaching and Teacher Education*, 61, 47-59.

Schneider, W., Roth, E., & Ennemoser, M. (2000). Training phonological skills and letter knowledge in children at risk for dyslexia: A comparison of three kindergarten intervention programs. *Journal of Educational Psychology*, 92, 284-295.

Wanzek, J., & Vaughn, S., (2007) Research based implications for extensive early reading interventions. *School Psychology Review*, 36(4), 541-561.

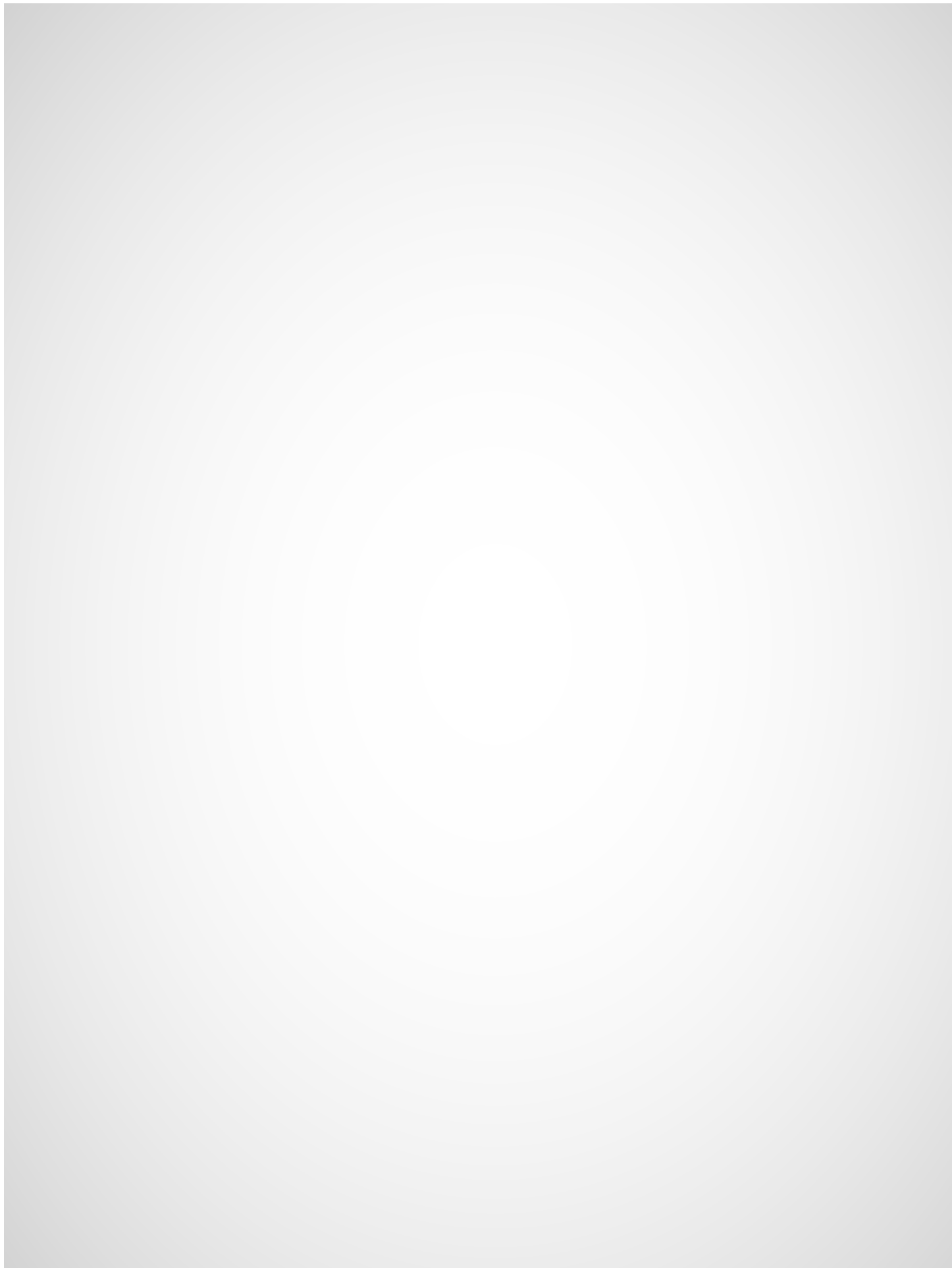
Wanzek, J., Vaughn, S., Scammacca, N., Gatlin, B., Walker, M. A., & Capin, P. (2015). Meta-analyses of the effects of tier 2 type reading interventions in grades k-3. *Educational Psychology Review*, 23(3), 551-576.



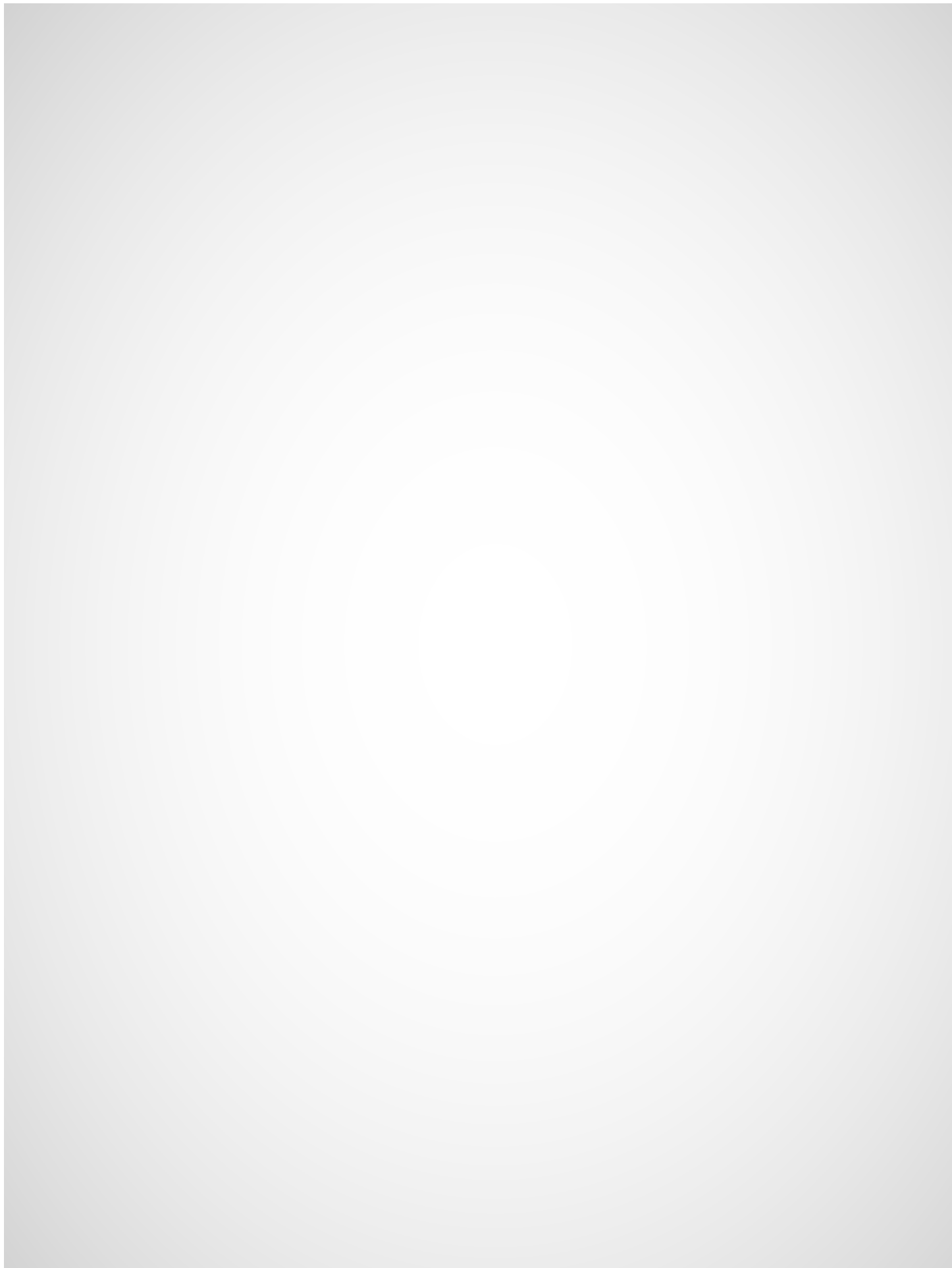
The first part of the text discusses the importance of maintaining accurate records in a laboratory setting. It emphasizes the need for clear labeling and organization of samples and equipment. The author notes that proper record-keeping is essential for ensuring the reliability and reproducibility of experimental results. This section also touches upon the importance of safety protocols and the role of documentation in incident investigations.

The second part of the text delves into the specifics of data collection and analysis. It describes various methods for gathering data, including direct observation, measurements, and the use of specialized instruments. The author highlights the importance of using appropriate statistical techniques to analyze the collected data and to draw meaningful conclusions from the results. This section also discusses the challenges of data management and the need for efficient storage and retrieval systems.

The final part of the text focuses on the communication of research findings. It discusses the importance of writing clear and concise reports and the role of peer review in the scientific process. The author emphasizes the need for transparency and honesty in reporting results, even when they do not support the initial hypothesis. This section also touches upon the importance of sharing research findings with the broader scientific community through conferences and publications.



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