Mastering the Code: Evaluation of an Early Reading Intervention

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Knowing that each student's academic success relies on his/her reading proficiency, schools must implement effective instructional reading models so that students can move from learning to read to reading to learn in the early years of development. The purpose of this inquiry was to evaluate the effectiveness of a kindergarten and first grade "reading room" Tier 2 intervention pilot program and to make recommendations for ongoing improvement. The reading room intervention was created due to a lack of pre-kindergarten experience and student exposure to text. Students were entering kindergarten behind, and, as those students progressed through the primary grades, the district noticed an increase in remediation needs. Based on the National Reading Panel's research and collaboration with reading experts in the area, the district created a reading room Tier 2 environment consisting of smaller teacher-to-student ratios, highly trained reading teachers, and an intensive instructional delivery model of the current phonics program. Findings from this study indicated that progress was made with students in the reading room environment and the general education classroom; however, due to the small sample size, more investigation may be needed. The study showed that the instructional elements of the intervention model were in place and have shown positive results. Teachers agreed that the reduced class sizes with intensive and explicit instruction guided by continuous progress monitoring were effective. The study also indicated that those involved in the intervention believe in the model and understand the urgency related to literacy acquisition in the primary years. However, recommendations to strengthen the model included clearly defined programming expectations and goals to improve the

fidelity of implementation. In addition, protocols are needed to identify each layer of the tiered support structure as well as collaboration expectations for general education teachers, special educators, and reading specialists.   The results of this study could be useful to school-level administrators and teachers who are implementing intensive primary reading interventions.

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1.0 Introduction

1.1 Problem Statement

As Torgesen writes in his seminal work, *Catch Them Before They Fall: Identification and Assessment to Prevent Reading Failure in Young Children* (1998), one of the most compelling findings from reading pedagogy research is that children who get off to a poor start in reading rarely catch up to their peers. He goes on to write that it is a tragedy of the first order that while we know clearly the costs of waiting too long, few school districts have in place a mechanism to identify and help children before failure takes hold (Torgesen,1998). This is especially true in school districts with a lower socioeconomic status and even more prevalent now with the integration of the Common Core Standards.

In lower socioeconomic status (SES) neighborhoods, children are entering kindergarten as young as five years of age with little or no pre-kindergarten experience, and therefore are behind from the beginning, as measured by early literacy benchmarks. Research shows that achievement gaps between children from lower socioeconomic backgrounds and their higher socioeconomic counterparts are about two-thirds of a standard deviation at the start of kindergarten, the equivalent of about three years of learning in later grades (Reardon & Portilla, 2016). To that end, teachers in lower SES school districts begin the school year by teaching pre-requisite standards and, consequently, most often the students end up behind. In most cases, however, they move on to first grade with the hope that they will eventually acquire the decoding skills needed to read.

Early literacy progression and intervention is an urgent need in the United States, as demonstrated through vast amounts of research (National Center for Education Statistics, 2011). Students are not mastering the foundational components of reading and therefore are experiencing frustration as they progress to the intermediate grade levels. Early literacy development impacts all areas of instruction and overall student confidence (Collins & Glover, 2015).

In addition, the Pennsylvania Common Core Standards have set new expectations for kindergarten reading, which some students struggle to master by the age of five. Child psychologists and researchers in the field have questioned the appropriateness of kindergarten reading standards, noting that instruction of phonological awareness components has shifted from first grade to kindergarten (Goldstein, 2008; Marxen, Ofstedal, & Danbom, 2008). "Where kindergarten was once a place for children to learn to socialize through play, many kindergarten classrooms have become replicas of first grade…" (Marxen, et al., 2008, p. 81).

Now that curriculum and standards across the United States have been impacted by the Common Core State Standards, expectations for literacy achievement in the primary grades have risen. Success in primary grades was largely defined as the ability to read independently by the end of third grade, with reading mostly understood to mean fluent decoding with adequate comprehension (Marxen et al., 2008). Although that level of skill is still desirable under the Common Core, competency has been redefined to include "the ability to gather and analyze information from multiple sources, cite evidence for responses to text, and write stories and nonfiction text that draw on a variety of related texts…" (Casbergue, 2017, p.646). With this level of mastery attainment expected by third grade, the basics of literacy acquisition, including phonological awareness, phonics, word recognition, and fluency, must be mastered in kindergarten and first grade. If not, students will not be prepared to comprehend and analyze text in later grade

levels. Instead, they will still be refining the decoding of language rather than making sense of a story or article. In other words, students who are not able to make use of phonemic awareness and phonics skills will have difficulty decoding texts, and their comprehension will be impaired.

School districts must create structures at the primary level that are intentional and responsive to individual needs. As Vaughan and Schumm (1996) argued, once children fall behind in the growth of critical word reading skills, it may require very intensive interventions to bring them back up to adequate levels of reading accuracy, and reading fluency may be even more difficult to restore because of the large amounts of reading practice lost by children each month and year that they remain readers who struggle to decode. Often, the intervention conversation includes the dilemma of funding sources; however, if students are not mastering grade-level expectations, at some point the district will need to allocate remediation funding. Therefore, why not allocate funding to prevention models rather than remediation programs?

Effective early literacy intervention includes explicit instruction in phonological awareness, links from letters to sounds, decoding, and word study as well as practice in reading text for accuracy, fluency, and comprehension (Foorman et al., 2017). To that end, organizational structures in kindergarten and first grade must provide intensive and explicit instruction, delivered in small groups and based on continuous formative assessment so that content and skills can be mastered based upon each student's need. Opportunities for immediate feedback and continuous response cycles are essential for mastery learning; therefore, teacher-student ratios must be aligned to achieve the intended results. The overarching goal is to catch students before they fall (Torgesen,1998) or before they are retained, unmotivated, or, years down the road, drop out of school. Students entering kindergarten with limited literacy acquisition skills can find success;

however, the sooner we intensively and explicitly reconcile gaps, the more successful they will become – resulting in long-term benefits for all.

The literature associated with primary literacy is vast and quite comprehensive. However, as noted by the National Research Council (2000), the complex world of education does not rest on or utilize its strong research base. In no other field are personal experience and ideology so frequently relied upon to make instructional decisions, and in no other field is the research base so little used. To move forward and improve literacy acquisition, instructional structures and modes of delivery need to change to match the needs of individuals.

According to the 2019 NAEP (National Assessment of Educational Progress) report, the United States has shown very few gains in reading. NAEP provides the largest regularly occurring assessment for students across the country. The assessment is administered consistently and remains the same from year to year to allow for valid monitoring of progress over time. The reading achievement data in the United States has remained quite low over the past half century and, with adoption of the Common Core Standards, one would expect that without intentional action, the numbers will remain low. Scores from the most recent National Assessment of Educational Progress (NAEP) show only a six-point increase in reading attainment for fourth grade students and only an eight-point increase in reading attainment for eighth grade students over the past 28 years; both of these gains are low considering the efforts of policies like No Child Left Behind, which was enacted with the primary purpose of closing achievement gaps (NCLB, 2001).
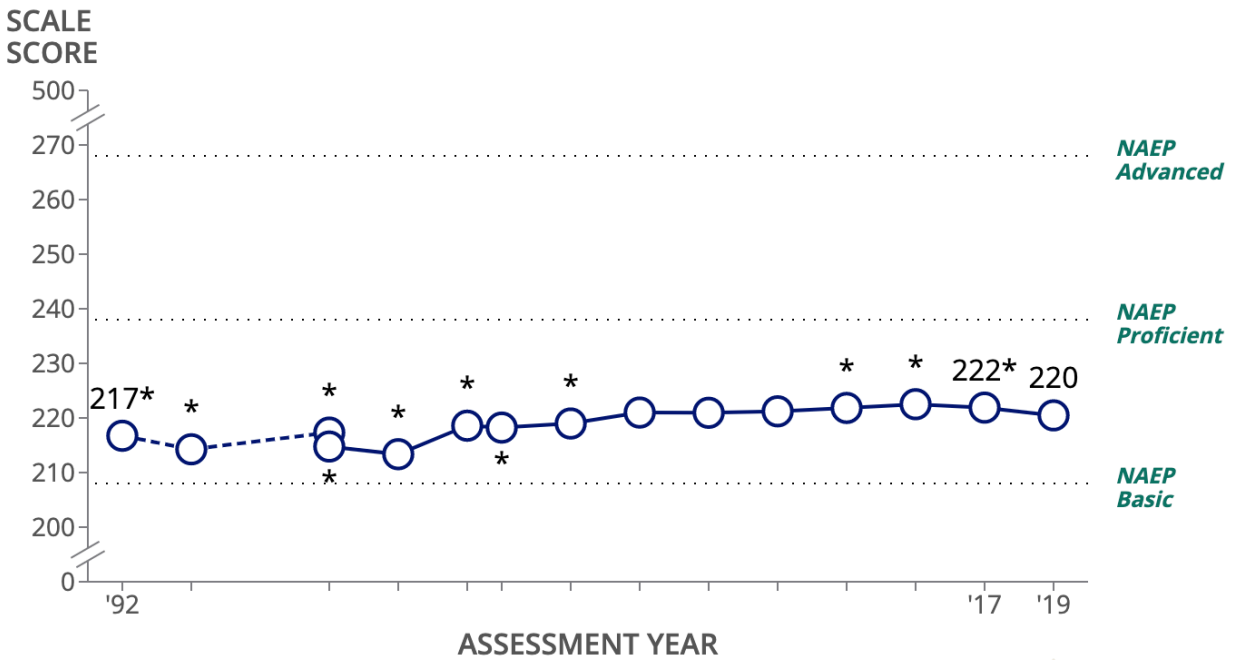
Figure 1. National Assessment of Educational Progress, Grade 4- 1992-2019
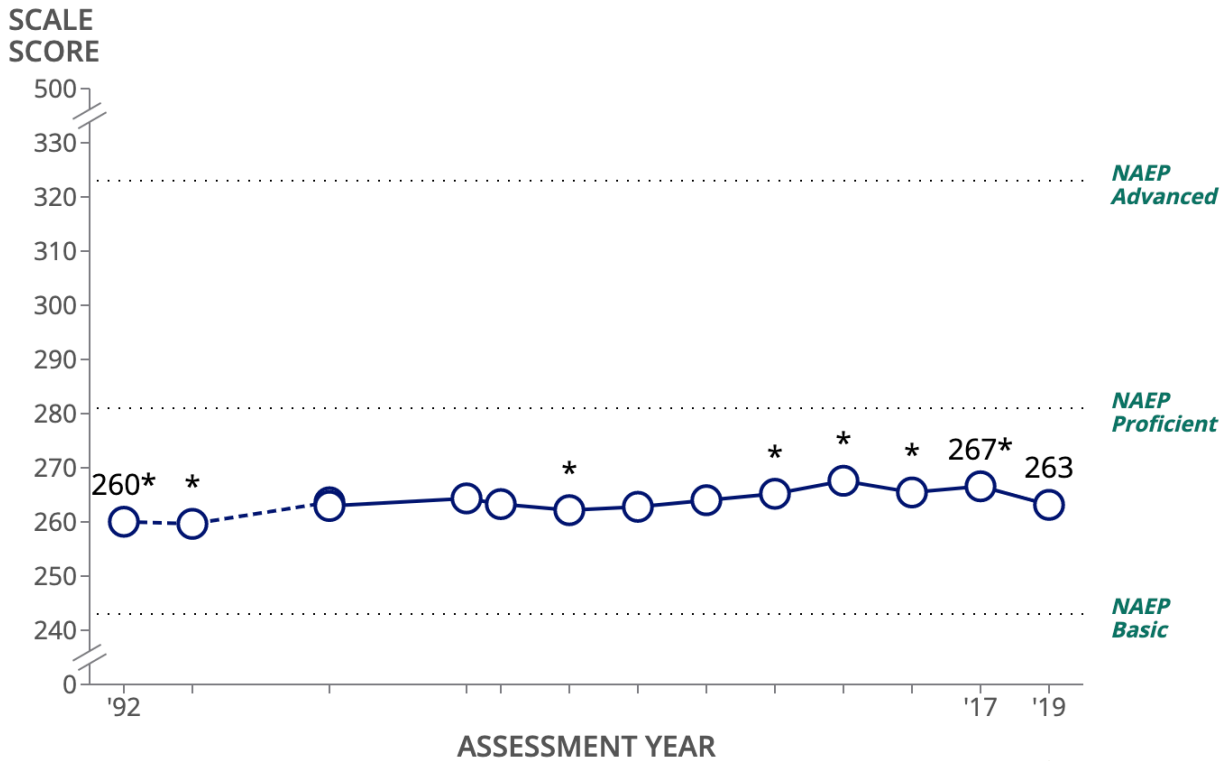
Figure 2. National Association of Educational Progress, Grade 8- 1992-2019

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Even with the small gains, only one-third of students in the country (35 percent of fourth-grade students and 34 percent of eighth-grade students) score in the proficient or advanced categories in reading as of 2019. Given the consistent low reading achievement in the Unites States over the past 28 years, a new look at literacy instruction and intervention is needed.

Knowing that each student's academic success relies on his/her reading efficiency, schools need to change from traditional mindsets and structures so that students can move from learning to read to reading to learn in the early years of development. Students with little or no pre-kindergarten experience, language barriers, or learning disabilities must have the opportunity to catch up through intensive intervention models. If primary supports are not established in the school setting, more special education services may be needed in the future for those students, which not only creates barriers for students but funding concerns for schools.

1.2 Significance of Problem at Place of Practice

The purpose of this inquiry was to evaluate the effectiveness of a kindergarten and first grade "reading room" Tier 2 intervention pilot program and to make recommendations for ongoing improvement. The reading room intervention was created due to a lack of pre-kindergarten experience and student exposure to text. Students were entering kindergarten behind, and, as those students progressed through the primary grades, the district noticed an increase in remediation needs as well as special education referrals. Based on the National Reading Panel's research and collaboration with reading experts in the area, the district created a reading room Tier 2 environment consisting of smaller teacher-to-student ratios, highly trained reading teachers, and an intensive instructional delivery model of the current phonics program. To date, the district has

observed positive results; however, further evaluation is needed in order to determine progress toward meeting identified program goals, assess the level of fidelity of program implementation, and identify the degree to which the program met the needs of struggling primary students.

2.0 Review of Literature

The review of literature presents an examination of the ideas and concepts relevant to effective reading interventions at the primary level. An understanding of effective literacy practices, class structures and environments, implementation, and assessment of attained skills is essential to identify needed components of an intervention program. It is with this knowledge that one can fully understand the variables related to literacy acquisition and determine the most appropriate intervention model.

2.1 Effective Literacy Practices

It is widely understood that effective early literacy intervention includes explicit instruction in phonological awareness, decoding, and word study as well as practice in reading text for accuracy, fluency, and comprehension (Foorman et al., 2017). In the traditional classroom setting, reading teachers often base their instruction on a district-adopted basal series, which usually provides adequate content; however, the suggested instructional strategies rarely meet the needs of all of the individual students in the classroom (Seindenberg, 2018). Therefore, teachers must know how to implement content and lessons focused on skill development so that those skills are retained by students at the level of mastery. To begin that process, phonemic awareness must be an area of emphasis in primary classrooms. Phonemic awareness is a cognitive skill that allows one to manipulate phonemes (the distinct units of sound in a language). By acquiring this skill set, students can decipher, for example, between "pat" and "bat," "had" and "hid," and "let" and "led,"

which exposes the importance of each initial, median, and final position and sound of a phoneme. Phonemic awareness must be introduced through explicit instruction to allow young readers a point of entry into the overall decoding process, attending to word form only and not meaning, which many students, and their teachers, may find to be counterintuitive (Hoover, 1990). Most often, students process phonemes automatically, directing their active attention to meaning and forcing the utterance of the whole word. To that end, roughly 25 percent of middle-class first graders and even more children who come from less language-rich backgrounds never fully master the identification and manipulation of phonemic awareness and, later, phoneme segmentation (Adams, Foorman, Lundberg, & Beeler, 2010).

Once students have grasped the sounds represented by letters, they must be able to apply them in decodable text through systematic phonics instruction. According to the National Reading Panel's extensive studies under the direction of the National Institute of Child Health and Human Development (NICHD), systematic phonics instruction produces the greatest impact on growth in reading when it begins in kindergarten or first grade before children have learned to read independently. To be effective, phonics instruction must be appropriately designed for learners and must begin with foundational knowledge involving letters and phonemic awareness. Teachers must introduce the letter-sound correspondence explicitly and teach students directly how to sound out words by blending the words' speech sound-spellings together sequentially from left to right, followed by practice using words composed of only those speech sound-spelling relationships that have been systematically taught (Blachman; Schatschneider, Fletcher, Francis, Carlson, & Foorman, 2004). Singer and Bashir (2004) suggested that writers who think too hard about spelling waste valuable cognitive resources needed for higher levels of composition. Therefore, the sooner the letter to sound correspondence foundation is laid, the more successful the student

will become during later years. Students will begin to build a reading automaticity that will directly impact their success with spelling and future writing ability (Moats et al., 2006).

In addition to a focus on phonemic awareness and systematic phonics instruction, effective literacy pedagogy must be combined with a high volume of reading opportunities that provide students with opportunities to develop comprehension skills and strategies. Regardless of reading abilities, all students will benefit by continuing to build their vocabulary and background knowledge (Cunningham & Stanovich, 1997). Stanovich described the Matthew Effect of academic achievement as the rich getting richer and the poor getting poorer. Those who begin decoding earlier are exposed to more print text and more complex vocabulary repertoires and, therefore, tend to read more and persevere through difficult print (Cunningham & Stanovich, 1997). Those who struggle to decode and are not exposed to varied text early on will not become proficient readers, which will further exacerbate their reading difficulties. The reciprocal nature of early reading acquisition and volume directly affect later reading comprehension. For that reason, all reading assigned in the classroom must be intentional and explicit, allowing students to apply phonics knowledge independently and with continuous feedback and teacher support.

Moreover, intentional and controlled reading environments guided by teachers foster student potential for higher reading fluency. In 2000, the National Reading Panel concluded that guided repeated oral reading procedures that include guidance from teachers, peers, or parents had a significant and positive impact on word recognition, fluency, and comprehension across a range of grade levels. This NRP finding is supported by studies conducted in both regular and special education settings.

Kindergarten and first grade are the years dedicated to word recognition based on phonological awareness, decoding, and sight recognition. The goal is for word recognition to

become increasingly automatic so that language comprehension can become more strategic, as demonstrated through Scarborough's (2001) Strands of Skilled Reading.
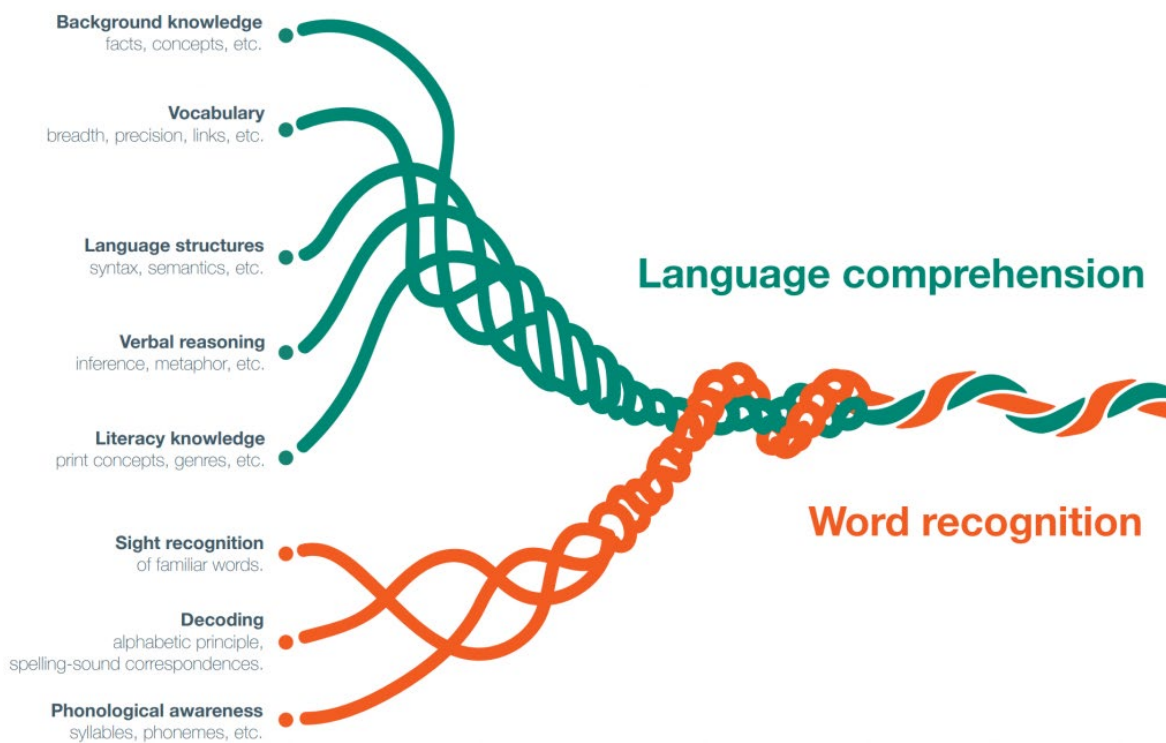
Figure 3. Scarborough's Strands of Skilled Reading (2001)

Scarborough (2018) suggests that weakness in any strand can disrupt reading, and weakness in several strands can disrupt reading more.

The Reading Rope consists of lower and upper strands. The word-recognition strands (phonological awareness, decoding, and sight recognition of familiar words) work together as the reader becomes accurate, fluent, and increasingly automatic with repetition and practice. Concurrently, the language-comprehension strands (background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge) reinforce one another and then weave together with the word-recognition strands to produce a skilled

reader. This does not happen overnight; it requires instruction and practice over time (p.75).

Effective literacy practices in the primary grades must attack the foundational stands of word recognition (orange strands), and, when areas in need of development appear, students must receive immediate interventions, which the NRP suggests is most beneficial in a one-on-one or small-group intervention so that students are given continuous feedback from teachers when isolating sounds in speech and linking the sounds to letters. Early intervention can often remedy this phonological core deficit that otherwise may lead to deficiencies in single word decoding, which is a hallmark of reading disabilities or dyslexia (National Reading Panel, 2000).

2.2 Classroom Structure for Improved Literacy Instruction

For students to learn to read, effective literacy practices are only part of the formula. Those practices are hindered if not implemented in an appropriate environment. Students entering kindergarten come with diverse skills sets and content knowledge; therefore, not all practices will benefit all students in a classroom. Thus, the discussion of a differentiated organizational structure in the primary grades is essential for individual student growth and skill development. This is especially true for lower socioeconomic status (SES) populations and non-English speaking communities.

According to the seminal NRP report (2000), small groups are the best way to teach phonemic awareness to children. Children benefit from observing their peers responding to and receiving feedback and from listening to their peers' comments and explanations. Children may also be more attentive and motivated to learn so that they do well in the eyes of their peers.

However, in today's classrooms, teachers tend to resort to whole group instruction where there is a profound disconnection between the science of reading and the traditional educational practices associated with whole group learning (Seidenberg, 2018).

Other studies completed the past decade have demonstrated similar results. In 2017, Foorman, Herrera, and Dombek indicated that interventions within the core program are just as successful as stand-alone intervention programs; however, both interventions used small group instruction practices regardless of whether it was embedded into the core program or separate from the school's common lessons. Duke and Block's 2012 evaluation of literacy in the primary grades identified national trends associated with the implementation of best practices and how to work with stakeholders to improve literacy instruction through system/structure change. The What Works Clearinghouse panel (2016) found that when instruction is provided in small groups with intensive and systematic instruction in foundational reading skills such as phonemic awareness, phonics, and comprehension, primary-grade readers will find greater success. During students' practice time, teachers leading smaller groups of students are able to provide clear and corrective feedback, which eliminates the potential for students to learn and practice incorrect letter sounds.

Ultimately, the Common Core State Standards require that children in primary grades approach reading with more sophistication than in the past. Not only should they be independent readers, they should be able to extract information, connect ideas, and synthesize meaning by the end of third grade. To meet these expectations, independent decoding as early as possible becomes the central task of a primary reading teacher. Teachers can ensure that children are ready for these new challenges through developmentally appropriate activities delivered in high quality early literacy environments filled with opportunities for children to meaningfully engage with print (Casbergue, 2017). For meaningful engagement to occur, the environment must align with

individual student needs, which cannot be accomplished in a classroom structured for whole group discussion. Opportunities for immediate feedback and continuous response cycles are essential for mastery learning; therefore, teacher-student ratio must be aligned to achieve intended results.

2.3 Implementation

From myriad research and studies, one can grasp the essentials needed for quality literacy practices in an appropriate and intentional learning environment. However, the tension arises when discussion veers towards implementation of best practice. If explicit, systematic, and meaningful instruction is to occur through small group structures, the question becomes "With whom?" In other words, "Who is the instructor?" and "Who are the students in each small group?" For decades, the debate over ability grouping has continued to surface throughout all levels of K-12 education. However, rather than debate the homogeneous nature of student groups, some researchers have emphasized the importance of identifying an optimal combination of instructional arrangements in order to maximize the potential benefits of ability grouping and eliminate its potential harm (Hong, Corter, Hong, & Pelletier 2012).

For example, Good and Brophy (2008) suggested using "extra instruction" for students needing more support via more instructional time or smaller group sizes. These suggestions are consistent with Dreeben and Barr's (1988) observation that whether low-ability students or students with learning deficits "do well or poorly depends on the quality of instruction, where quality refers to an appropriate combination of instructional conditions, and not on the mere facts of low group aptitude or rank" (p. 56). Hong et al.'s 2012 findings directly aligned with Dreeben and Barr (1988) and revealed that during the kindergarten year, student learning is optimized when

they receive a substantial amount of literacy instruction time and adaptive instruction through homogeneous small grouping. Low-ability children or those with deficits suffer from high-intensity grouping when instruction time is low. In addition, Hong's (2012) results indicated that homogeneous grouping did not create social-emotional difficulties among low-ability or low-exposure kindergartners. Rather, with ample amounts of time allocated to literacy instruction, low-intensity grouping contributed to a reduction in internalizing problem behaviors among low-ability students and students with learning deficits. These results contradict the argument that homogeneous grouping may harm low-ability students or students with learning deficits' self-esteem while improving high-ability students' self-concepts. To that end, the implementation of differentiated structures may be homogeneous; however, time on task and quality practices are the crucial components needed for successful results and sustained outcomes.

In addition to classroom configuration and student groupings, successful implementation of literacy intervention models requires teachers to fully understand how one learns to read (which is not provided in the use of traditional basal series) and then how to guide the development of automaticity through differentiated methods (Cummings, Atkins, Allison, & Cole, 2008). Moats (2016) suggested that teachers may cling to unproductive philosophies of teaching not only because science-based instruction is neglected in many teacher-training programs, but also because the requisite insights are elusive and the content may be difficult to grasp. Therefore, for preventive reading models to be effective, training in the areas of literacy pedagogy, differentiated instruction, and data analysis are critical.

2.4 Identifiers and Classroom Assessment

According to the National Reading Panel (2000), which over time has published countless literacy studies, the most successful primary literary structures tailor instruction to student learning by assessing who has and who has not acquired literary skills. Students who have acquired the skills must move on to other aspects of reading and writing to accomplish the ultimate the goal of reading automaticity. As defined through LaBerge and Samuels' (1974) seminal work, automaticity in rudimentary knowledge (letter-sound connection) is non-negotiable for successful literacy acquisition.

To that end, assessments, both formative and summative, must be identified to capture and evaluate students' literacy progress. Due to the varied learning opportunities that students receive before entering kindergarten, researchers suggest that it may be best to administer the first formal screening at the beginning of the second semester of kindergarten (Scarborough, 1998). Some students may have not have received much literacy exposure in a preschool setting; however, they may retain skills quickly and therefore not be at risk of reading failure. Torgesen (1998) suggests a two-measure assessment focusing on letter names and sounds as well as a measure of phonemic awareness. Tests of letter-name knowledge are most predictive for kindergarten children, and tests of letter-sound correspondence are most predictive for first graders. Phonemic awareness measures should include segmentation of phonemes, phoneme isolation, phoneme deletion, phoneme substitution, and phoneme blending.

Once students have shown strengths in the areas of phonological awareness and decoding, the focus of evaluation becomes word reading ability. Assessments must attack sight word reading ability, phonetic reading ability, and overall fluency. Torgersen recommends specific tests such as the Woodcock Reading Mastery Test and the Word Reading Efficiency and Non-Word Reading

Efficiency Test as effective norm-based measures. In addition to stand-alone subtests, a comprehensive assessment system such as DIBELS (Good & Kaminski, 2002) or adaptive assessments such as STAR literacy or NWEA Measures of Academic Progress may be employed to assess the key components of primary literacy. Once assessments are administered, focused and intentional discussions about progress and steps moving forward are necessary for continued successful instruction.

2.5 Summary of Research

Reading research is vast and plentiful and should be used to make instructional decisions. It is widely known that many students struggle to read and, due to this deficit, other areas of learning are greatly impacted. Therefore, intervention models must be designed focusing on intentional instruction in appropriate environments. In addition, when prioritizing needs, school districts must understand the impact of successful primary literacy programs. With a strong reading base, students are more confident, capable, and successful. This review of literature suggests the necessary focus for early literacy interventions and assessments to determine the effectiveness of those interventions.

To evaluate the need, implementation, and effectiveness of an intervention model, the following research questions ground this study.

1. What conditions led to the implementation of the reading room intervention model? (Context)

2. Does the reading room intervention model meet the needs of the struggling readers? (Input)

3. To what degree is the reading room intervention model implemented with fidelity? (Process)

4. How effective is the reading room intervention model? (Product)

3.0 Methodology

This chapter describes the methodology for this inquiry. It includes the district demographic data, the school demographic data, descriptions of the participants in the sample of the inquiry, the design of the inquiry, and the methods used in data collection and analysis. A mixed methods design was used with the following data sources: a review of archival data, (including pre-existing data), a survey, and seven interviews. The purpose of the survey and interviews is to gain perspective into the implementation of the "reading room" intervention and to evaluate the effectiveness of the early literacy intervention program using the CIPP (Context, Input, Process, Product) evaluation model. The CIPP Evaluation Model was chosen for this study due to its use for evaluating school-based programs and its consistency with a mixed-methods study approach (Stufflebeam, 2000).

The CIPP model was created in the 1960s by Daniel Stufflebeam and is a decision-oriented model that systematically collects information about a program to identify strengths and limitations in content or delivery, to improve program effectiveness, or to plan for the future of a program. The focus is on continuous improvement by concentrating on four areas of a program: the overall goals or mission (Context Evaluation), the plans and resources (Input Evaluation), the activities or components (Process Evaluation), and the outcomes or objectives (Product Evaluation) (Stufflebeam, 2000). In order to determine effectiveness of the "reading room" intervention, the researcher will evaluate the conditions (context) that led to the implementation of the early literacy intervention, the identified needs (input) of the struggling early readers, the degree to which the program was implemented (process) with fidelity, and lastly, the overall effectiveness in relation to best practices (product).

Research Questions

1. What conditions led to the implementation of the reading room intervention model? (Context)

2. Does the reading room intervention model meet the needs of the struggling readers? (Input)

3. To what degree is the reading room intervention model implemented with fidelity? (Process)

4. How effective is the reading room intervention model? (Product)

3.1 Archived Data Review

3.1.1 District Demographic Data

The district of inquiry has a current enrollment of 1,215 students in two elementary schools, one middle school, and one high school. The district serves the educational needs of a small, middle-class suburban community encompassing 1.5 square miles with an estimated population of 9,300 citizens. In relation to educational attainment, 90 percent of the population holds a high school diploma, and 27 percent holds a bachelor's degree or higher.

The student population is currently 78 percent white Caucasian, 7 percent African American, 7 percent Asian, 4.5 percent Hispanic, and approximately 4.5 percent multiracial, American Indian, and Pacific Islander combined. According to the 2018 Penn Data report, an annual report based on special education data for school districts in Pennsylvania, the special education population totals 15.5 percent. While the English language learner population continues

to grow, it is currently 6.8 percent, and the economically disadvantaged population is approximately 53 percent.

3.1.2 School Demographic Data

Within the school of inquiry, there are 234 students. Fifteen percent of the population is identified as needing special education, 7.3 percent are English language learners, 1.7 percent are gifted learners, and 48.7 percent are considered economically disadvantaged. The class size fluctuates from year to year depending on enrollment. Throughout the past five years, class sizes have ranged from 18 to 27 students per classroom in kindergarten and first grade.

During the spring of 2018, a group of teachers and administrators met to discuss the increasing number of students entering school struggling with early literacy concepts and understandings. After researching intervention models and visiting neighboring school districts to observe successful practices, the school decided to pilot a reading room intervention model. The purpose of the reading room intervention program was to create a small group structure that delivered an intensive phonics lesson to struggling readers while staying closely aligned to the core curriculum. The model included a general education teacher, a reading specialist, and a paraprofessional. Students were identified as in-need or at-risk in November after 10 weeks of core instruction. Teachers used universal assessments (NWEA MAP Growth and DIBELS-Dynamic Indicators of Basic Early Literacy Skills), unit assessments, and anecdotal notes to identify needs.

Beginning in the winter of their kindergarten or first grade year, 12 kindergarten students and eight first grade students in need of literacy support received the majority of their reading and language instruction through the reading room intervention model. The model included three areas

of instruction each held for 30 minutes: reading comprehension, word work, and language arts/writing. Students received instruction in small groups daily led by the classroom teacher, reading specialist, or paraeducator. Primary materials included the Wilson's Foundations program, which the teaching faculty learned during a year-long Wilson coaching program, and Pearson's Reading Street Literacy Program, which were the same resources utilized in the core classrooms. Students showing areas of need reported to the reading room classroom during their scheduled reading block and rotated through the small-group stations during the block. They returned to their homerooms for the remainder of their school day. At the end of the school year, increases in both literacy growth and/or achievement for all 20 students were observed by using the DIBELS assessment and/or the reading MAP growth assessment shown below. However, it is important to note that due to the small sample size in the study, one cannot state whether the gains were statistically significant.

Table 1. Achievement and Growth Data- Kindergarten Reading Room Students

	Kindergarten Student Name (Reading Room Student)	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019 **END OF YEAR**	**Kindergarten Student Name (Reading Room Student)**	DIBELS Fall 2018	DIBELS Spring 2019 **END OF YEAR**
		141	158		26	119
1	H.B.	130	165	H.B.	Intensive 11	Strategic 90
2	J.D.	147	168	J.D	Intensive 0	Core 153
3	K.F.	133	170	K.F	No Score	Core 132
4	H.G.	125	159	H.G.	Intensive 3	Strategic 98
5	D.J.	129	176	D.J	Strategic 18	Core 125
6	A.J.	125	156	A.J.	Intensive 0	Core 141
7	L.L.	124	156	L.L.	Intensive 2	Intensive 58
8	M.L.	129	168	M.L.	Intensive 1	Intensive 67
9	T.P.	132	172	T.P.	Strategic 25	Core 180
10	T.R.	122	166	T.R.	No Score	Strategic 114
11	L.R.	143	165	L.R.	Intensive 10	Core 124
12	B.W.	136	161	B.W.	Strategic 13	Core 119

The kindergarten data shows that all 12 reading room students showed growth on the MAP (Measures of Academic Progress) Assessment with only two scoring slightly below the expected norm of 158. The DIBELS (Dynamic Indicators of Basic Early Literacy Skills) Assessment data demonstrates that all students made growth and seven students reached core support (which indicates that the child is not in need of strategic or intensive support models).

Table 2. Achievement and Growth Data- First Grade Reading Room Students

	FIRST GRADE Student Name (Reading Room Student)	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019	FIRST GRADE Student Name (Reading Room Student)	DIBELS BEGINNING Fall 2018	DIBELS END Spring 2019
		161	177		113	155
1	J.B.	132	143	J.B.	Intensive-42	Intensive- 10
2	D.W.	150	171	D.W.	Intensive-45	Intensive -44
3	C.L.	151	177	C.L.	Intensive- 50	Intensive - 108
4	C.G.	134	171	C.G.	Intensive -95	Core- 212
5	A.L.	142	192	A.L.	Strategic- 99	Core- 188
6	A.D.	168	189	A.D.	Strategic-108	Strategic- 127
7	C.Y.	167	193	C.Y.	Intensive- 68	Core- 218
8	S.L.	156	177	S.L.	Intensive- 80	Intensive- 90
9	R.G.	164	198	R.G.	Strategic- 99	Strategic -130
10	K.G.	164	181	K.G.	Core- 113	Core- 177
11	E.B.	163	179	E.B.	Core- 141	Core- 240

The first-grade data results indicate that all students made growth on the MAP (Measures of Academic Progress) Assessment with eight meeting or exceeding the RIT scale benchmark of 177. The DIBELS (Dynamic Indicators of Basic Early Literacy Skills) Assessment shows that nine of the 11 made growth, with five meeting the core support benchmark. In addition, students in the core classrooms that did not receive instruction in the reading room environment showed similar growth and achievement.

Table 3. Achievement and Growth Data- Kindergarten Non- Reading Room Students

	Kindergarten Student Name (Non-Reading Room Student)	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019	Kindergarten Student Name	DIBELS BEGINNING Fall 2018	DIBELS END Spring 2019
		141	158		26	119
1	M.B.	137	170	M.B.	Core 38	Core 169
2	Q.B.	146	182	Q.B.	Core 40	Core 146
3	L.B.	136	185	L.B.	Core 44	Core 153
4	C.C.	141	181	C.C.	Core 49	Core 198
5	A.D.	147	179	A.D.	Core 43	Core 129
6	D.E.	148	179	D.E.	Core 32	Core 166
7	D.H.	136	158	D.H.	Core 50	Strategic 118
8	P.M.	134	173	P.M.	Core 81	Core 227
9	C.M.	152	193	C.M.	Core 61	Core 193
10	R.Q.	135	175	R.Q.	Core 39	Core 124
11	D.R.	138	161	D.R.	Core 26	Core 153
12	L.S.	134	162	L.S.	Core 57	Core 212
13	E.S.	137	165	E.S.	Core 32	Core 147
14	M.T.	138	176	M.T.	Core 29	Core 134
15	B.Z	142	174	B.Z	Strategic 20	Strategic 117

Table 4. Achievement and Growth Data- First Grade Non- Reading Room Students

	FIRST GRADE Student Name (Non-Reading Room)	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019	FIRST GRADE Student Name (Non-Reading Room)	DIBELS BEGINNING Fall 2018	DIBELS END Spring 2019
		161	177.5		113	155
1	L.E.	174	183	L.E.	Core- 115	Strategic- 112
2	H.J.	156	165	H.J.	Core- 119	Strategic- 118
3	C.V.	178	200	C.V.	Core- 124	Core- 164
4	C.F.	179	191	C.F.	Core- 128	Core- 227

Table 4 continued

5	L.M.	186	199	L.M.	Core-132	Core- 188
6	J.S.	185	197	J.S.	Core- 140	Core- 235
7	K.K.	166	198	K.K.	Core- 141	Core- 276
8	X.A.	178	210	X.A.	Core- 174	Core- 338
9	K.S.	170	200	K.S.	Core- 183	Core- 290
10	N.J.	170	195	N.J.	Strategic-103	Core- 259
11	A.G.	166	187	A.G.	Strategic-108	Core- 185
12	A.K.	163	186	A.K.	Core- 114	Core- 237
13	A.R.	170	186	A.R.	Core- 123	Strategic-126
14	N.S.	169	191	N.S.	Core- 127	Core- 294
15	A.A.	161	187	A.A.	Core- 132	Core- 238
16	P.M.	167	193	P.M.	Core- 172	Core- 270
17	E.K.	177	204	E.K.	Core- 177	Core- 248
18	H.H.	182	196	H.H.	Core- 181	Core- 263
19	R.C.	180	202	R.C.	Core- 185	Core- 335
20	E.W	171	202	E.W	Core 189	Core- 349

3.2 Survey

3.2.1 Survey Participants

To gain a better understanding of the effectiveness of the intervention model, the researcher utilized a teacher survey based on the CIPP Model to gather feedback about the reading room program implementation. The survey was disseminated to the kindergarten teachers, first grade teachers, reading specialists, paraprofessionals, and the building administrator in the school of inquiry.

3.2.2 Survey Design

The survey used was designed using the CIPP Model's four interconnected evaluations: context, input, process, and product. The survey uses a five-point Likert scale with the following options: strongly agree (A), agree (B), neither agree nor disagree (C), disagree (D), and strongly disagree (E). In addition, the survey includes a section for open response after each question.

3.2.3 Data Collection

All teachers, paraprofessionals, and administrators involved in the reading intervention program were invited to participate in the survey via email with a link to the actual survey. The email explained how the survey was used to complete a formative program evaluation as well as the researcher's role as the principal investigator. It also explained the anonymity of results, the intended use, and the voluntary nature of the survey. Text of the email invitation is included in Appendix A with the survey. The survey was distributed via a Google Form. All participants were able to use district devices during school time in order to access and complete the survey. The researcher used Google Forms due to participants' familiarity with the product. The platform converted the data into an Excel spreadsheet and graphs for analysis. An electronic survey allowed for quicker response times. The survey remained open for two weeks. All seven responses were received in the first week, resulting in a 100 percent response rate.

3.2.4 Data Analysis

The survey was designed to generate quantitative data for analysis. Survey responses compiled for each question were analyzed within the CIPP program evaluation framework to gather information for a formative review of the reading intervention program. Percentages of participants responding at each level of the Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree) for each question were calculated. The survey data was analyzed at three response levels: strongly agree/agree, neither agree nor disagree, and strongly disagree/disagree in order to determine if participant responses varied from the expected rate of 100 percent strongly agree/agree. Since this study is a program evaluation, an expected rate of 100 percent strongly agree/agree was used to assess the level of participant understanding of the basic components of the program and the degree to which the program was implemented with fidelity.

3.3 Individual Interviews

Individual interviews were conducted with seven participants. Two sets of semi-structured interview protocols were used, one for the building administrator and another for the teachers and paraprofessionals. The administrator interview questions provided opportunities to collect background information, strengths of the implementation of the program, and challenges to the success of the program. Questions for the administrator included:

1. What conditions led to the district's decision to implement a reading room
   intervention program? (Context)

2. Before the implementation of the reading room, what programs were in place to address the needs of struggling kindergarten and first grade readers? (Input)

3. Why was a reading room program selected for use in the district? (Input)

4. What do you feel are the strengths of the program? (Context)

5. What challenges have you observed with the implementation of the program? (Context)

6. How do you monitor the implementation of the program? (Process)

7. How do you measure the level of fidelity of the implementation of the program? (Process)

8. How would you rate the quality of the implementation of the program? (Product)

9. How would you rate the effectiveness of the program? (Product)

In addition to the administrator interview, six teacher/paraprofessional interviews were held to gather information about their observations and beliefs about the program. Questions for the teachers/paraprofessionals included:

1. What are the goals of the reading room intervention program? (Context)

2. What did reading instruction for struggling readers look like in your classroom before the reading room intervention? (Input)

3. In your opinion, what are the strengths of the reading room intervention program? (Input)

4. In your opinion, what are the challenges of the reading room intervention program? (Input)

5. How do you ensure the program is implemented with fidelity? (Process)

6. In your opinion, how effective is the reading room intervention program? (Product)

3.3.1 Data Collection

The researcher sent an invitation via email to the reading room intervention teachers, paraprofessionals, and related building principal. The participants also received a letter explaining the process of the interviews, the intended use, and the anonymity of their responses (Appendix D). Identifying data was not shared. The individual interviews occurred during the participants' student-free time and during the school day for the building principal. After requesting permission to audio record the interview, the researcher transcribed the interviews using the Microsoft dictation tool.

3.3.2 Data Analysis

The researcher used transcript-based analysis to review the interview data. Responses were analyzed by coding and categorizing interview responses. The coding process began with the researcher reading through the hard copy of the interview transcript. During the second read, the researcher highlighted text and assigned codes. Based on the coding, the researcher categorized the codes and assigned themes to the text (Saldaña, 2009). Themes were reviewed and connected to the CIPP Evaluation Model: context, input, process, and product. Data tables were created to record frequency of themes.

4.0 Results

4.1 Introduction

Primary literacy acquisition is an essential element of a child's academic success. Reading interventions for students who have had little to no exposure to text as well as those who may need additional support are critical and must be implemented as early as possible. The mixed methods research study was designed to administer a program evaluation of a reading room intervention model implemented in a small suburban school district in Pennsylvania. The CIPP program Evaluation Model served as the framework for the research questions and data collection due to its use in evaluating school- related programs. The CIPP Evaluation Model gathered information through four interconnected evaluations: context, input, process, and product. The four subsets allowed the researcher to determine strengths, areas of need, and level of success of the reading room intervention (Stufflebeam, 2000). The program evaluation identified areas of strength as well as areas of weakness with the goal of improving reading instruction and intervention yielding greater literacy success for students.

4.2 Research Questions

1. What conditions led to the implementation of the reading room intervention model? (Context)

2. Does the reading room intervention model meet the needs of the struggling readers? (Input)

3. To what degree is the reading room intervention model implemented with fidelity? (Process)

4. How effective is the reading room intervention model? (Product)

4.3 Setting and Participants

The setting for the research study was a small suburban school district in Pennsylvania. Only one of the two elementary schools in the district was included in the study due to its initiative to pilot the reading intervention model during the 2018-2019 school year. The study included one building administrator, four teachers, and two paraprofessionals, all of whom participated in the intervention implementation.

4.4 Overview

In this chapter, results from data collected through the analysis of student assessment, a teacher/administrator survey, and interviews with building-level faculty were reviewed as they related to the CIPP Evaluation Model: context, input, process, and product. Context evaluation was used to discern major factors of the program and served as a needs-assessment. This evaluation provided information about challenges or assets that hindered or aided in the building goals of improving literacy acquisition and success for students. Input evaluation was used to assess the program to determine if it was the best plan for meeting the needs of struggling kindergarten and first grade readers. Process evaluation was utilized to review the implementation

of the intervention model to determine the degree to which program elements are effectively in place. Process evaluation focused more on the quality of the intervention model. Product evaluation was used to synthesize information collected through context, input, and process evaluations and determined intended and unintended outcomes. Each element of evaluation helped to solidify the success of the intervention program (Stufflebeam, 2000).

4.5 Quantitative Data Analysis

Results from the 2018-2019 (year of piloted intervention) MAP (Measures of Academic Progress) and DIBELS (Dynamic Indicators of Basic Early Literacy Skills) assessments were analyzed. Results indicated that students receiving reading instruction in the reading room intervention model and those who received their reading instruction in the core classrooms showed growth and/or achievement. As stated previously, due to the small sample size, results may not be statistically significant.

The MAP kindergarten results show that all 12 reading room intervention students demonstrated growth from the beginning of the year to the end, with only two students scoring slightly below the expected norm RIT score of 158. Those two students earned an RIT score of 156. The DIBELS results indicated that 10 of the 12 reading room students with beginning and end-of-year data all demonstrated growth, with eight scoring in the next tier of leveled support. By the end of the school year, seven of the 12 identified reading students met or exceeded benchmark scores. Three students moved to strategic support from intensive support, with scores slightly below benchmark. Two students remained within the intensive support range, prompting discussions about other possible services.

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Kindergarten non-reading room students met or exceeded the MAP norm level of expectancy, and 13 of the 15 met or exceeded the DIBELS benchmark of 119. Two students scored slightly below, earning a 118 and 117 score.

Table 5. Achievement and Growth Data- Kindergarten Reading Room Students

	Kindergarten Student Name (Reading Room Student)	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019 **END OF YEAR**	**Kindergarten** Student Name (Reading Room Student)	DIBELS Fall 2018	DIBELS Spring 2019 **END OF YEAR**
		141	158		26	119
1	H.B.	130	165	H.B.	Intensive 11	Strategic 90
2	J.D.	147	168	J.D	Intensive 0	Core 153
3	K.F.	133	170	K.F	No Score	Core 132
4	H.G.	125	159	H.G.	Intensive 3	Strategic 98
5	D.J.	129	176	D.J	Strategic 18	Core 125
6	A.J.	125	156	A.J.	Intensive 0	Core 141
7	L.L.	124	156	L.L.	Intensive 2	Intensive 58
8	M.L.	129	168	M.L.	Intensive 1	Intensive 67
9	T.P.	132	172	T.P.	Strategic 25	Core 180
10	T.R.	122	166	T.R.	No Score	Strategic 114
11	L.R.	143	165	L.R.	Intensive 10	Core 124
12	B.W.	136	161	B.W.	Strategic 13	Core 119

Table 6. Achievement and Growth Data- Kindergarten Non- Reading Room Students

	Kindergarten Student Name **(Non-Reading Room)**	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019	**Kindergarten** Student Name **(Non-Reading Room)**	DIBELS BEGINNING Fall 2018	DIBELS END Spring 2019
		141	158		26	119
1	M.B.	137	170	M.B.	Core 38	Core 169
2	Q.B.	146	182	Q.B.	Core 40	Core 146
3	L.B.	136	185	L.B.	Core 44	Core 153
4	C.C.	141	181	C.C.	Core 49	Core 198
5	A.D.	147	179	A.D.	Core 43	Core 129
6	D.E.	148	179	D.E.	Core 32	Core 166
7	D.H.	136	158	D.H.	Core 50	Strategic 118

Table 6 continued

8	P.M.	134	173	P.M.	Core 81	Core 227
9	C.M.	152	193	C.M.	Core 61	Core 193
10	R.Q.	135	175	R.Q.	Core 39	Core 124
11	D. R.	138	161	D.R.	Core 26	Core 153
12	L.S.	134	162	L.S.	Core 57	Core 212
13	E.S.	137	165	E.S.	Core 32	Core 147
14	M.T.	138	176	M.T.	Core 29	Core 134
15	B.Z	142	174	B.Z	Strategic 20	Strategic 117

The first-grade student data shows that all students demonstrated growth from the beginning of the year to the end of the year, with eight students meeting or exceeding the RIT scale benchmark of 177. Two students earned a slightly lower score with an RIT score of 171; one student remained far from the 177 norm-referenced score, earning a 143 RIT score. The DIBELS data indicated that nine of 11 students demonstrated growth, with five meeting or exceeding the core benchmark of 155. Two students did not show growth or achievement, resulting in discussions about more intensive services.

Table 7. Achievement and Growth Data- First Grade Reading Room Students

	FIRST GRADE Student Name (Reading Room Student)	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019	**FIRST GRADE** Student Name (Reading Room Student)	DIBELS BEGINNING Fall 2018	DIBELS END Spring 2019
		161	177		113	155
1	J.B.	132	143	J.B.	Intensive-42	Intensive- 10
2	D.W.	150	171	D.W.	Intensive-45	Intensive -44
3	C.L.	151	177	C.L.	Intensive- 50	Intensive – 108
4	C.G.	134	171	C.G.	Intensive -95	Core- 212
5	A.L.	142	192	A.L.	Strategic- 99	Core- 188
6	A.D.	168	189	A.D.	Strategic-108	Strategic- 127
7	C.Y.	167	193	C.Y.	Intensive- 68	Core- 218

8	S.L.	156	177	S.L.	Intensive- 80	Intensive- 90
9	R.G.	164	198	R.G.	Strategic- 99	Strategic -130
10	K.G.	164	181	K.G.	Core- 113	Core- 177
11	E.B.	163	179	E.B.	Core- 141	Core- 240

Non-reading room first grade students showed continued growth and achievement. Nineteen of the 20 first-grade non-reading room students met or exceeded the MAP norm level of expectancy, and 17 of the 20 met or exceeded the DIBELS benchmark of 155. Three students scored below the benchmark, demonstrating a need for strategic support.

Table 8. Achievement and Growth Data- First Grade Non- Reading Room Students

	FIRST GRADE Student Name **(Non-Reading Room)**	MAP RIT SCORE Fall 2018	MAP RIT SCORE Spring 2019	**FIRST GRADE** Student Name **(Non-Reading Room)**	DIBELS BEGINNING Fall 2018	DIBELS END Spring 2019
		161	177.5		113	155
1	L.E.	174	183	L.E.	Core- 115	Strategic- 112
2	H.J.	156	165	H.J.	Core- 119	Strategic- 118
3	C.V.	178	200	C.V.	Core- 124	Core- 164
4	C.F.	179	191	C.F.	Core- 128	Core- 227
5	L.M.	186	199	L.M.	Core-132	Core- 188
6	J.S.	185	197	J.S.	Core- 140	Core- 235
7	K.K.	166	198	K.K.	Core- 141	Core- 276
8	X.A.	178	210	X.A.	Core- 174	Core- 338
9	K.S.	170	200	K.S.	Core- 183	Core- 290
10	N.J.	170	195	N.J.	Strategic- 103	Core- 259
11	A.G.	166	187	A.G.	Strategic- 108	Core- 185
12	A.K.	163	186	A.K.	Core- 114	Core- 237
13	A.R.	170	186	A.R.	Core- 123	Strategic- 126
14	N.S.	169	191	N.S.	Core- 127	Core- 294
15	A.A.	161	187	A.A.	Core- 132	Core- 238
16	P.M.	167	193	P.M.	Core- 172	Core- 270
17	E.K.	177	204	E.K.	Core- 177	Core- 248

18	H.H.	182	196	H.H.	Core- 181	Core- 263
19	R.C.	180	202	R.C.	Core- 185	Core- 335
20	E.W.	171	202	E.W	Core 189	Core- 349

4.6 Teacher Survey

Teachers, paraprofessionals, and the building administrator were invited by email (Appendix B) to complete an anonymous electronic survey (Appendix C). The email explained that the survey was designed to collect formative assessment data concerning the implementation of the reading room intervention model and that it was part of a dissertation study. All accessed the survey through a Google Form link. The survey was designed using the CIPP Evaluation Model's evaluations: context, input, process, and product. The survey consisted of 26 questions, including four demographic questions and 22 questions to which participants responded using a five-point Likert scale with the opportunity to make comments after each question. The survey remained open for two weeks. All seven of the participants completed the survey within the two-week period, resulting in a 100 percent completion rate.

The survey was divided into five sections. The first section asked the participants to complete demographic information about their current grade level(s), years teaching or serving in their current roles, totals years of educational experience, and highest degree earned. The data show that all faculty involved in the intervention have been working in the same capacity for 10 or more years, with the exception of the building administrator. The years of educational experience ranged from 11 to 27 years. Two of the seven participants hold a bachelor's degree,

four hold master's degrees, and one has a doctoral degree. Demographic data is summarized in

Table 9.

Table 9 Demographic Responses for All Respondents

Table 9 continued

	Educational Role	Years of teaching/working with current grade level	Total Number of Years of Educational Work Experience	Highest Degree Earned
1	Paraprofessional	11	11	Master's Degree in Education
2	Paraprofessional	10	22	Bachelor's in Education
3	Teacher-Kindergarten	27	27	Master's Degree in Education
4	Teacher- First Grade	11	15	Master's Degree in Education
5	Reading Specialist	12	17	Master's Degree in Education
6	Reading Specialist	26	26	Bachelor's Degree in Education
7	Building Principal	5	20	Doctoral Degree in Education

Following the demographic data, the remaining 22 survey questions were divided into four

sections, one for each of the CIPP program evaluations. Percentages of teachers who strongly

agree/agree, neither agree nor disagree, and strongly disagree/disagree to each question were

calculated. The effectiveness of the reading room implementation was measured by comparing

participant response rates with the expected response rate of 100 percent strongly agree/agree

(except for question 15, for which the response of strongly disagree/disagree was expected).

4.7 Context Evaluation: Questions 5-10

Context evaluation uncovers challenges and assets in a program that hindered or aided meeting the building's goals (Stufflebeam, 2000). Context evaluation was used in this study to identify essential factors of the intervention and served as a program needs assessment. For questions 5 through 10, teachers responded strongly agree or agree at a rate of 85 percent or higher to all questions. In additional comments, participants noted that "the reading room allows students to receive instruction at a pace that is most conducive for their learning." They also indicated, "Some students need additional practice or exposure. That does not mean that they are not capable of learning at high levels. I agree that all students have the potential but they need help in school and at home." One teacher noted that "if your core curriculum is not effectively designed, then you may end up with too many students being considered for the intervention due to lack of appropriate instruction and not true needs." A common theme focused on the necessity for highly qualified educators to teach phonemic awareness, phonics, fluency, vocabulary, and comprehension in a systematic and explicit way. One educator elaborated: "I see too many times where educators are not word building or they are allowing kids to use pictures to decode words. This causes bad reading habits." A summary of all participant responses to context questions 5 through10 is found in Table 10. Responses are reported by percentage in three categories: strongly agree and agree, neither agree nor disagree, and strongly disagree and disagree.

Table 10. Survey Responses: All Participants- Questions 5-10 (Context)

Question	All Participants Response Percentages				
	SA-A	N	SD-D	Answered	Skipped
5. One goal of the reading intervention program is to ensure all	85.7%	14.3%	0%	7	0

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students receive necessary instruction so that they read on grade level.					
6. The reading intervention program is a general education initiative.	100%	0%	0%	7	0
7. All students have the potential to achieve at high levels.	85.7%	14.3%	0%	7	0
8. An effectively designed core curriculum is a key component of the reading intervention program.	100%	0%	0%	7	0
9. The reading room intervention program is designed to provide high quality phonics instruction in a small group environment.	85.7%	0%	14.3%	7	0
10. The reading room intervention program is designed to provide high quality instruction and interventions according to individual student needs.	100%	0%	0%	7	0

Results of the survey indicate that participants were in agreement with questions 6, 8, and 10. However, questions 5 and 7 resulted in 14.3 percent with neither agree nor disagree, and question 9 yielded a response of 14.3 percent in disagreement.

Fisher's exact test was calculated to compare frequency of occurrences of participant responses in the following categories: strongly agree/agree and neither agree nor disagree/strongly

disagree/disagree to context evaluation survey items. Since this study was a program evaluation,

an expected rate of 100 percent was chosen. It was hypothesized that all participants would be in

agreement with the survey statements, indicating essential elements of the reading room

intervention model implemented with fidelity. Results of the calculation indicated insignificant

results. A summary of Fisher's exact test calculated for questions 5 through10 can be found in

Table 11.

Table 11. Fisher's Exact Test Results- Survey Responses: All Participants- Questions 5-10 (Context)

CIPP Evaluation Model- Context	Fisher's Exact Test Results		
Question	Agree/Strongly Agree	Neither Agree nor Disagree/Strongly Disagree/Disagree	Fisher's Exact Test $p<.05$
5. One goal of the reading intervention program is to ensure all students receive necessary instruction so that they read on grade level.	85.7%	14.3%	1- Not significant
Teacher Responses	6	1	
Expected	7	0	
6. The reading intervention program is a general education initiative.	100%	0%	1- Not significant
Teacher Responses	7	0	
Expected	7	0	
7. All students have the potential to achieve at high levels.	85.7%	14.3%	1- Not significant
Teacher Responses	6	1	
Expected	7	0	
8. An effectively designed core curriculum is a key component of the reading intervention program.	100%	0%	1- Not significant
Teacher Responses	7	0	

Expected	7	0	
9. The reading room intervention program is designed to provide high quality phonics instruction in a small group environment.	85.7%	14.3%	1- Not significant
Teacher Responses	6	1	
Expected	7	0	
10. The reading room intervention program is designed to provide high quality instruction and interventions according to individual student needs.	100%	0%	1- Not significant
Teacher Responses	7	0	
Expected	7	0	

4.8 Input Evaluation: Survey Questions 11-15

Survey questions 11 through 15 provided information for the input evaluation. The input evaluation was used to assess program design to determine if it was the best plan for meeting the needs of the target population and identified processes, procedures, and strategies to meet the target population needs (Stufflebeam, 2000). This study revealed that 100 percent of the participants felt that interventions provided as soon as students begin to struggle help students overcome economic and environmental disadvantages. Additional comments provided for questions 11 through 15 indicated that the participants felt "the reading room provided more targeted instruction that students may not have received in a larger setting" and that the reading room environment provides a space "where struggling readers can get instruction that is tailored to the most important concepts they need to learn, providing opportunities for the repeated practice needed for mastery." One participant stated that "the reading room is not the only intervention model and that others may be just as good." A first-grade teacher noted that "some struggling readers did not respond to the

reading room because their academic needs were greater than what the reading room could provide." Participants expressed that this intervention is a step in the right direction, but more training, possibly around dyslexia, for all reading teachers would be beneficial. A summary of participant responses to input questions 11 through 15 is found in Table 12. Responses are reported by percentage in three categories: strongly agree and agree, neither agree nor disagree, and strongly disagree and disagree.

Table 12. Survey Responses: All Participants- Questions 11-15 (Input)

Question	All Participants Response Percentages				
	SA-A	N	SD-D	Answered	Skipped
11. The reading room intervention program is necessary to address the needs of struggling readers.	85.7%	14.3%	0%	7	0
12. Interventions provided as soon as students begin to struggle help students overcome economic or environmental disadvantages.	100%	0%	0%	7	0
13. The reading room intervention program provides effective intervention for all struggling readers.	42.9%	28.6%	28.6%	7	0
14.The reading room intervention program is more effective than other programs or models for meeting reading needs of all students.	28.6%	71.4%	0%	7	0

	75.1%	14.3%	14.3%	7	0
15. The reading room intervention program helps to identify students in need of special education services.					

The survey results from questions 13 through 15 of the input evaluation may prompt further analysis. Some teachers were not in agreement that the reading room intervention model provided effective intervention for all struggling readers and some found that it was a means to identifying students for special education which was not a goal of the program.

Fisher's exact test was calculated for questions 11 through15 at the expected rate of 100 percent strongly agree and agree, with the exception of question 15 for which 100 percent strongly disagree and disagree was the expected rate. Results for question 14, "The reading room intervention program is more effective than other programs or models for meeting reading needs of all students," were significant. A summary of Fisher's exact test calculated for questions 11 through15 can be found in Table 13.

Table 13. Fisher's Exact Test Results- Survey Responses: All Participants- Questions 11-15 (Input)

CIPP Evaluation Model- Input	Fisher's Exact Test Results		
Question	Strongly agree/agree	Neither agree nor disagree/strongly disagree/disagree	Fisher's Exact Test P<.05
11. The reading room intervention program is necessary to address the needs of struggling readers.	85.7%	14.3%	1- Not Significant
Teacher Responses	6	1	
Expected	7	0	

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12. Interventions provided as soon as students begin to struggle help students overcome economic or environmental disadvantages.	100%	0%	1- Not Significant
Teacher Responses	7	0	
Expected	7	0	
13. The reading room intervention program provides effective intervention for all struggling readers.	42.9%	28.6%	.0699- Not Significant
Teacher Responses	3	4	
Expected	7	0	
14.The reading room intervention program is more effective than other programs or models for meeting reading needs of all students.	28.6%	71.4%	.021- Significant
Teacher Responses	5	2	
Expected	7	0	
15. The reading room intervention program helps to identify students in need of special education services.	75.1%	28.6%	.4615- Not Significant
Teacher Responses	2	5	
Expected	0	7	

Table 13 continued

4.9 Process Evaluation- Questions 16- 22

Survey questions 16 through 22 focused on the process evaluation, which focuses on the quality of the intervention (Stufflebeam, 2000). Process evaluation was utilized to understand the implementation of the intervention model and the degree to which the program variables were effectively implemented. When asked if data from universal screeners were analyzed to determine student need, 85.7 percent responded in agreement, with only one paraprofessional unsure of what assessments were considered universal screeners. In addition, when asked if progress monitoring was used to determine effectiveness of the intervention and if teachers work collaboratively to address the needs of struggling teachers, the participants were 100 percent in agreement. In fact, one participant noted that "these elements are essential for the program to be successful." Finally, those entrenched in the reading room stated that they were 100 percent confident in their ability to instruct in the reading room intervention model. The building administrator selected "not applicable" in her response. The last statement on the survey, "The reading room intervention pilot program is implemented with fidelity," brought about some inconsistency, with 57.2 percent in agreement, 14.3 percent neither agreeing nor disagreeing, and 14.3 percent in disagreement. One participant noted that "there may have been too many variables within the intervention to determine success of implementation," and another noted that "sometimes it was difficult to pick and choose which kids should be a part of the reading room because we wanted to keep the numbers low in the reading room." A summary of all participant responses to process questions

16 through 22 is found in Table 14. Responses are reported by percentage in three categories: strongly agree and agree, neither agree nor disagree, and strongly disagree and disagree.

Table 14. Survey Responses: All Participants- Questions 16-22 (Process)

Question	All Participants Response Percentages				
	SA-A	N	SD-D	Answered	Skipped
16. Data from universal screeners is analyzed to determine students in need of interventions.	85.7%	14.3%	0%	7	0
17.Research-based literacy materials are used to address student needs.	85.7%	14.3%	0%	7	0
18. Progress monitoring is used to determine the effectiveness of individual interventions.	100%	0%	0%	7	0
19.Teachers work together to address the needs of struggling readers.	100%	0%	0%	7	0
20. I am confident in my ability to implement the reading room intervention program.	85.7%-(1 NA)	0%	0%	7	0
21.All elements of an intervention program- universal screening, tiered intervention, and progress monitoring - are implemented.	85.7%	14.3%		7	0
22. The reading room intervention program is implemented with fidelity.	57.2%	28.6%	14.3%	7	0

Table 14 continued

Fisher's exact test was calculated for questions 16 through 22 at the expected rate of 100 percent strongly agree and agree. Results indicated no significant findings. A summary of Fisher's exact test calculated for questions 16 through 22 can be found in Table 15.

Table 15. Fisher's Exact Test Results- Survey Responses: All Participants- Questions 15-22 (Process)

CIPP Evaluation Model- Process	Fisher's Exact Test Results		
Question	Strongly agree/agree	Neither agree nor disagree/strongly disagree/disagree	Fisher's Exact Test Results P<.05
16. Data from universal screeners is analyzed to determine students in need of interventions.	85.7%	14.3%	1- Not Significant
Teacher Responses	6	1	
Expected	7	0	
17.Research-based literacy materials are used to address student needs.	85.7%	14.3%	1- Not Significant
Teacher Responses	6	1	
Expected	7	0	
18. Progress monitoring is used to determine the effectiveness of individual interventions.	100%	0%	1- Not Significant
	7	0	
	7	0	
19.Teachers work together to address the needs of struggling readers.	100%	0%	1- Not Significant
Teacher Responses	7	0	
Expected	7	0	

Table 15 continued

20. I am confident in my ability to implement the reading room intervention program.	85.7%-(1 NA)	0%	1- Not Significant
Teacher Responses	6	0	
Expected	6	0	
21.All elements of an intervention program- universal screening, tiered intervention, and progress monitoring- are implemented.	85.7%	14.3%	1- Not Significant
Teacher Responses	6	1	
Expected	7	0	
22. The reading room intervention program is implemented with fidelity.	57.2%	42.9%	.05- Not Significant
Teacher Responses	4	3	
Expected	7	0	

4.10 Product Evaluation: Survey Questions 23-26

Survey questions 16 through26 centered on the product evaluation, which aids in determining program success (Stufflebeam, 2000). Information collected through context, input, and process evaluations were used to conduct the product evaluation. Intended and unintended outcomes were examined during the product review. When asked if universal screening measures effectively identified struggling readers, 85.7 percent of the participants agreed. Multiple comments revealed that classroom performance and teacher input were also major factors in the

identification process. The majority, 85.7 percent of the participants, felt that the core curriculum met the needs of most learners, with 14.3 percent in disagreement; however, no additional comments were noted. Moreover, 71.5 percent of the participants agreed that progress monitoring guides instructional decision making and interventions provided to students, with 28.6 percent responding in neither agreement nor disagreement. Lastly, 85.7 percent responded that the reading room intervention model effectively meets the needs of struggling readers, with 14.3 percent neither in agreement nor disagreement. One participant commented that "while the progress I have seen has not always been at the level desired, I do believe that the reading room is designed to give struggling readers their best opportunity for reading improvement." A summary of all participant responses in product questions 23 through 26 is found in Table 16. Responses are reported by percentage in three categories: strongly agree and agree, neither agree nor disagree, and strongly disagree and disagree.

Table 16. Survey Responses: All Participants- Questions 23-26 (Product)

Question	All Participants Response Percentages				
	SA-A	N	SD-D	Answered	Skipped
23. Universal screening measures (DIBELS, MAP) effectively identify struggling readers.	85.7%	14.3%	0%	7	0
24. The core curriculum meets the needs of most learners.	85.7%	0%	14.3%	7	0
25. Information from progress monitoring guides instructional decisions and	71.5%	28.6%	0%	7	0

interventions provided for all students.					
26. The reading room intervention program effectively meets the needs of struggling readers.	85.7%	14.3%	0%	7	0

Fisher's exact test was calculated for questions 23 through 26 at the expected rate of 100 percent strongly agree and agree. Results indicated no significant findings. A summary of Fisher's exact test calculated for questions 23 through26 can be found in Table 17.

Table 17. Survey Responses: All Participants Questions 23-26 (Product)

CIPP Evaluation-Product	Fisher's Exact Test Results		
Question	Strongly agree/agree	Neither agree nor disagree/strongly disagree/disagree	Fisher's Exact Test Results $P< .05$
23. Universal screening measures (DIBELS, MAP) effectively identify struggling readers.	85.7%	14.3%	1- Not Significant
Participants Responses	6	1	
Expected	7	0	
24. The core curriculum meets the needs of most learners.	85.7%	0%	1- Not Significant
Particpants Responses	6	1	
Expected	7	0	
25. Information from progress monitoring guides instructional decisions and interventions provided for all students.	71.5%	28.6%	.4615- Not Significant
Participants Responses	5	2	
Expected	7	0	

Table 17 continued

26. The reading room intervention program effectively meets the needs of struggling readers.	85.7%	14.3%	1- Not Significant
Participants Responses	6	1	
Expected	7	0	

4.11 Interviews- Building Administrator

Interviews were conducted with one building administrator, four teachers, and two paraprofessionals (see Appendix D). Questions for these interviews were developed based on the four evaluations found in the CIPP Evaluation Model: context, input, process, and product. Questions asked of the building administrator were developed to understand the background information leading to the district's decision to implement the reading room intervention model, as well as the strengths and challenges of the implementation. The following questions were developed for the building administrator.

1. What conditions led to the district's decision to implement a reading room intervention program? (Context)

2. Before the implementation of the reading room, what programs were in place to address the needs of struggling kindergarten and first grade readers? (Input)

3. Why was a reading room program selected for use in the district? (Input)

4. What do you feel are the strengths of the program? (Context)

5. What challenges have you observed with the implementation of the program? (Context)

6. How do you monitor the implementation of the program? (Process)

7. How do you measure the level of fidelity of the implementation of the program? (Process)

8. How would you rate the quality of the implementation of the program? (Product)

9. How would you rate the effectiveness of the program? (Product)

Interviews with the building administrator were recorded, transcribed, and coded to identify common themes with the teachers and paraprofessionals.

The building administrator explained that the reading room was implemented to identify students struggling to read and to match them with the appropriate level of support and service. Before implementation of the reading room, the general curriculum was used to meet the needs of all learners, which was found to be insufficient for continued literacy success. The district did not have a systematic program for teaching phonics, which was brought about with the incorporation of the reading room model. The strengths of the model include the intensive delivery of instruction, more repetition for those who need more time to master sounds, and reduced class sizes across the grade level. The building administrator explained that, at times, it was challenging when students fell on the cusp of need as shown by the data and staff had to determine which students would benefit the most from the reading room environment since they were trying to keep numbers low for intensive intervention. She went on to note that cyclical data was used to monitor all students. Students not making progress in the reading room were looked at more closely to identify if there was a different underlying need for another service or another method of instructional delivery. Continued observations were used to monitor the fidelity of implementation. Small adjustments were made throughout the year based on observations and work with Wilson reading coaches. The administrator shared that she was satisfied with the overall effectiveness of the model due to the low number of special education referrals and the continued

growth of literacy development observed with the reading room students. She pointed out that almost all of the reading room students were true readers by the end of second grade.

4.12 Interviews- Teachers and Paraprofessionals

Four teachers and two paraprofessionals were interviewed individually. These interviews helped in gathering perspectives regarding the implementation of the intervention model as well as the strengths and challenges of the program. Questions for these interviews were developed in the CIPP Evaluation Model and included the following:

1. What are the goals of the reading room intervention program? (Context)

2. What did reading instruction for struggling readers look like in your classroom before the reading room intervention? (Input)

3. In your opinion, what are the strengths of the reading room intervention program? (Input)

4. In your opinion, what are the challenges of the reading room intervention program? (Input)

5. How do you ensure the program is implemented with fidelity? (Process)

6. In your opinion, how effective is the reading room intervention program? (Product)

Teachers and paraprofessionals noted that before the implementation of the reading room, very little intensive intervention was given to students. At times, students were pulled into small groups during station work in the classrooms, but otherwise, the majority of instruction was delivered in whole group settings. They stated that they needed something like the reading room in order to offer tiered support to students needing additional practice or more time to develop

skills. The only exception previous to the reading room was Title I support, for which students were pulled for 30 minutes focusing on phonics and word building. However, when discussing the strengths of the model, a few common themes surfaced. The first focused on building confidence and giving the students the time and opportunity to succeed. In whole group settings, they would become frustrated and feel defeated. The reading room allowed for them to see progress and take ownership of their skill development. In addition, another strength was that all classrooms were reduced in size; therefore, all students were able to receive more feedback or more practice at their level. Finally, in each interview the idea of matching instruction to the individual learner was shared. With a whole group in a heterogeneous classroom, the idea of individualized instruction was quite a challenge.

When discussing the challenges of the intervention model, the teachers and paraprofessionals expressed concern for students who were still not making progress in the reading room setting and wondered if more support or training was needed in the area of dyslexia. They also stated that it was a challenge to stay close to grade-level pacing guides and speculated that in future years it may be worth the time to create an additional pacing guide for the reading room model that stays aligned to the core curriculum and skill development but removes repetitious units. The reading room teachers would not be concerned about pace if they knew that by the end of the school year all students would have received a similar experience and similar exposure to content and skill practice.

When asked about the fidelity of implementation, the teachers and paraprofessionals noted in order for this kind of model to be successful and implemented with fidelity, highly trained staff in the area of reading are essential. This will allow for consistency of instructional delivery. In addition, moving forward, the teacher roles may need to be further defined to identify each staff

member's instructional responsibility. While this staffing issue did not surface as a problem or

challenge, it was mentioned multiple times during the discussion of fidelity of implementation.

Finally, throughout each interview, the teacher or paraprofessional found the intervention

to be effective and a model that should continue in the future. They stated that it is a benefit to all

due to class size reduction, matching instruction to learner readiness, and building confidence in

the students. All mentioned the connection to potential special education referrals and the need to

work with students who are below grade-level benchmarks and non-disability. However, a

common theme of the reading room serving as a special education identifier emerged. While this

was not a goal, many found that it allowed for intensive data collection to support potential

referrals for special education evaluations.

Table 18. Common Themes Identified from Interview Conducted with Teachers and Paraprofessionals

CIPP Evaluation Model Elements	Common Themes- Teachers and Paraprofessionals
Question 1: Goals (context)	Tiered approach to instruction Explicit instruction Repetition Matching learner needs Below-level learners
Question 2: Instruction before reading room intervention (Input)	General education classroom Whole group learning model Management difficulty Additional support needed Student frustration
Question 3: Strengths (Input)	Instruction aligned to needs Building confidence in students Progress monitoring Repetition Feedback
Question 4 Challenges (Input)	Students with disabilities and no progress Balancing pacing guides with student need Learning delay vs. learning disability

Question 5: Fidelity of Implementation (Process)	Highly trained reading teachers Clearly defined responsibilities Consistency with strategies Communication of progress
Question 6: Effectiveness (Product)	Quality materials Highly trained teacher and support Benefit to all- class size reductions Not a cure all Prevention

In addition to the common themes identified in the teacher and paraprofessional interviews, common ideas emerged between the building administrator interview and the teacher/paraprofessional discussions. Both the building administrator and teaching staff indicated that the goal of the reading room was to match student need with instruction and that, before the reading room intervention model was implemented, the general curriculum within a whole group setting was not meeting the needs of the students. In addition, both stated that the repetition of instruction and reduced class sizes were strengths of the reading room intervention model. When discussing overall effectiveness of the intervention, both explained that the reading room allowed for intensive and systematic instruction with reduced class sizes, allowing for continued growth of literacy development.

Table 19. Common Themes Identified from Interview Conducted with Building Administrator, Teachers, and Paraprofessionals

CIPP Evaluation Model Elements	Common Themes- All Particpants
Question 1: Goals (Context)	Explicit instruction Repetition Matching learner needs
Question 2: Instruction before reading room intervention (Input)	General education classroom Whole group learning model

Question 3: Strengths (Input)	Instruction aligned to needs Repetition Feedback
Question 6: Effectiveness (Product)	Quality materials Highly trained teachers Benefit to all- class size reductions Prevention

4.13 Chapter Summary

This study employed mixed methods and included quantitative data (reading achievement and growth data and teacher survey) and qualitative data (teacher/administrator survey comments and interviews). Due to the small size of the sample and length of the intervention pilot, reading achievement and growth scores were analyzed using benchmark and norm-referenced data. Other quantitative data (Likert scale responses) were analyzed using Fisher's exact test. Teacher/administrator survey comments and interview data were coded and analyzed. Overall, the quantitative data and qualitative data results indicated that the essential elements of the intervention program are in place and that it is effective. However, more work is needed to improve the program.

5.0 Summary and Conclusions

5.1 Introduction

The purpose of this study was to evaluate the effectiveness of a kindergarten and first grade "reading room" Tier 2 intervention pilot program and to make recommendations for ongoing improvement. The reading room intervention was created due to a lack of pre-kindergarten experience and student exposure to text. Students were entering kindergarten behind, and, as those students progressed through the primary grades, the district noticed an increase in remediation needs. Based on the National Reading Panel's research and collaboration with reading experts in the area, the district created a reading room Tier 2 environment consisting of smaller teacher-to-student ratios, highly trained reading teachers, and an intensive instructional delivery model of the current phonics program. Further evaluation was needed to define the overall effectiveness by determining progress toward meeting identified program goals, assessing the level of fidelity of program implementation, and identifying the degree in which the program met the needs of struggling primary students.

This chapter summarizes results and findings of the CIPP Program Evaluation of a reading room intervention model in a small suburban school district. It also discusses implications for the four inter-related evaluations in the CIPP Model (context, input, process, and product) in relation to implementation of the reading room intervention to order to make recommendations based on identified strengths and areas needed for improvement. This study utilized a mixed-methods approach with quantitative and qualitative data. Data included reading achievement and growth

data, participant survey responses, and individual interview data from participants who took part in the implementation of the reading room intervention model.

5.2 Research Questions

Research questions were created using the four evaluations with the CIPP Evaluation Model: context, input, process, product. The inquiry sought to answer the following research questions.

1. What conditions led to the implementation of the reading room intervention model? (Context)

2. Does the reading room intervention model meet the needs of the struggling readers? (Input)

3. To what degree is the reading room intervention model implemented with fidelity? (Process)

4. How effective is the reading room intervention model? (Product)

5.3 Summary of Findings and Conclusions

Findings are organized by the CIPP model evaluation areas and the related research question. The researcher used interviews with participants involved in the implementation of the reading room intervention, a survey including comments, and an analysis of reading achievement and growth scores to gather data for the study. For each question on the teacher survey, Fisher's exact test was calculated to determine the level of significance. The researcher chose an expected

rate of 100 percent strongly agree and agree to demonstrate teacher/administrator knowledge of the reading room intervention model. Results indicated that all but one question, "The reading room intervention pilot program is implemented with fidelity," were insignificant, indicating mostly positive perceptions related to the intervention model.

The student data were analyzed using norm-referenced targets and benchmarks to identify growth and achievement. MAP results indicated that kindergarten students made growth and that 25 of the 27 students met or exceeded the norm-referenced benchmark score of 158 by the end of the school year. Two students earned a score of 156, slightly missing the norm-referenced benchmark. Ten of the kindergarten students who met or exceeded the benchmark participated in the reading room intervention. In addition, all kindergarten students showed progress on the DIBELS assessment by the end of the school year, with 20 of the 27 meeting the end-of-year benchmark of 119. Moreover, the first grade MAP scores reflect that all students experienced growth, with 27 of the 31 meeting or exceeding the end-of-year norm-referenced score of 177. Eight of the first-grade students who met or exceeded the benchmark participated in the reading room intervention. The DIBELS data demonstrates that 29 of the 31 students progressed throughout the school year, with 22 of the 31 meeting the end-of-year benchmark of 155.

5.4 Context Evaluation Results

Context evaluation was used to identify essential factors of the reading room intervention model: goals, needs, challenges, and assets. Results of the context evaluation data collected from the building administrator, teachers, and paraprofessionals indicated a true understanding of the intervention. The building administrator noted that the goal of the intervention model was to

identify students struggling to read and to match them with the appropriate level of support and service. Surveyed teachers and paraprofessionals indicated at a rate 85.7 percent that "one goal of the reading room intervention pilot program is to ensure all students receive necessary instruction so that they reach grade level reading benchmarks," and 100 percent of those surveyed agreed that "the reading room intervention pilot program is designed to provide high quality instruction and interventions according to individual student needs." An identified strength of the model is that it allows students to receive instruction at a pace that is most conducive to their learning. In addition, while 100 percent of the survey participants agreed that the intervention is a general education initiative, there was still some uncertainty related to its role in the identification of special education needs.

5.5 Research Question 1

What conditions led to the implementation of the reading room intervention model? Conditions leading to the implementation of the reading room model were observations of students entering school struggling with early literacy concepts and understandings. The district's research led them to the plan of piloting a reading room intervention model. The strengths of the model included the intensive delivery of instruction, more repetition for those who need more time to master sounds, and reduced class sizes across the grade level.

5.6 Input Evaluation Results

Input evaluation was used to assess program design to determine if the program was the best plan for meeting the needs of the target population and identifying processes, procedures, and strategies to meet target population needs (Stufflebeam, 2000.).

The researcher used interviews and a survey with the building administrator, teachers, and paraprofessionals to gather data for the input evaluation. All agreed that before the implementation of the reading room intervention model, the general curriculum for whole group settings was used to meet the needs of learners, which was found to be insufficient. At times and during some years when staffing aligned, students were regrouped for reading based on reading level, but this grouping was not consistent or implemented with fidelity. Title I groups would be pulled for short 30-minute sessions, but little progress was observed with those students. The survey questions demonstrated that 100 percent of participants agreed that "interventions provided as soon as students begin to struggle help students overcome economic or environmental disadvantages"; however, 42 percent of the staff felt that the reading room intervention pilot provided effective intervention for all struggling readers. One significant finding revealed that 28.6 percent felt that the reading room intervention program is more effective than other programs or models for meeting reading needs of all students. Teachers' comments indicated that some students' needs appeared greater than what the reading room could provide. In addition, concerns were shared about the pacing and "getting too far behind" the core curriculum pacing guide. One conflicting finding was that 71 percent agreed that the reading room intervention helps to identify students in need of special education services. While this is not a goal of the program, it is certainly an area needed to be addressed.

Input evaluation results indicated challenges related to procedures and strategies used for students showing greater need. Due to greater need, pacing in the reading room may be slowed, which causes concern when trying to stay closely aligned to the core curriculum pacing. In addition, teachers need a better understanding of the relationship between this intervention and special education referrals/services.

5.7 Research Question 2

Does the reading room intervention model meet the needs of the struggling readers? The student achievement and growth data indicate that the intervention provided positive results for most students. Since this was a pilot year, it is difficult to discern achievement differences throughout multiple years, which would be a recommendation moving forward. When asked to respond to the following survey statement, "The reading room intervention model effectively meets the needs of struggling readers," 42.9 percent agreed. The responses shared as comments on the survey and in interviews focused on the need to support those who have possible learning disabilities.

5.8 Process Evaluation Results

Process evaluation was used to review the implementation of the program, the degree to which program elements were effectively implemented, and implementation concerns. Process evaluation was also used to discover how those involved interpreted the quality of the program

(Stufflebeam, 2000). Interviews and survey information were gathered for process evaluation. The building administrator noted a challenge in deciphering which students would benefit most from the reading room intervention based on universal screener data as well as classroom observations. To keep the numbers low for intensive intervention, collaboration with the teachers and staff was needed in order to identify best supports and environments for each student in the grade level. In addition, the building administrator noted that since it was a pilot intervention, small changes needed to be made throughout the year which, at times, made monitoring the program fidelity difficult. Like the building administrator, some teachers noted concern with fidelity (42.9 percent) due to small changes with schedule and student groupings. Although some degree of teacher adaptation is anticipated, interventions implemented with higher fidelity tend to be more effective (Quinn & Kim, 2017). However, 100 percent surveyed agreed that progress monitoring was used to determine the effectiveness of the intervention and that all worked together to address needs of students. In addition, 85.7 percent agreed that "all elements of an intervention program- universal screening, tiered intervention, and progress monitoring are implemented," all of which were positive findings. While the participants agreed with the design, instructional materials, and process, the results indicate concerns about the fidelity of implementation.

5.9 Research Question 3

To what degree is the reading room intervention program implemented with fidelity? The building principal and teaching staff expressed concern about the fidelity of implementation due to small changes made throughout the year. When changes were made, all teachers were informed; however, data collection based on student progress may have been skewed due to a change in the

schedule or intervention strategy. To that end, one would anticipate change in a pilot program with the idea that the second year of implementation would have more fidelity.

5.10 Product Evaluation Results

Product evaluation was used to combine information gathered through context, input, and process evaluations to identify intended and unintended outcomes. This information provided feedback to aid in determining the program's success (Stufflebeam,2000). Interviews, survey information, and student data were used for the product evaluation. The reading room intervention program was implemented to provide support for struggling kindergarten and first grade readers through a tiered approach. Intended outcomes identified in this study included administrator and teacher identification of the essential elements of the intervention and the urgency that led to its implementation. The building administrator, teachers, and paraprofessionals utilized resources and data to make informed decisions about student needs and levels of support. They employed cyclical processes to monitor progress and adjust instruction by working together as a team. In addition, all voiced their confidence in their ability to instruct in a reading room intervention model.

In contrast, several unintended outcomes were discovered. While all agreed that the reading room intervention model was part of the core curriculum, some uncertainty surfaced about the connection between the Tier 2 support and its connection to the special education referral process. More information was needed to clarify the expectations for students potentially needing more support than offered in the reading room setting. In addition, due to small changes in the

initial program in relation to schedule and identification of students in the reading room, teachers shared concern with the fidelity of implementation.

5.11 Research Question 4

How effective is the reading room intervention model? As shown by the common themes in the interview data, comments/percentages noted on the survey, and student progress data, the reading room was effective and the participants found great value in continuing the intervention while refining areas within the model. Both the teaching faculty and the building administrator shared that the reading room intervention model provided opportunities for intensive and systematic instruction implemented in small group environments, which is what they believed the students needed in order to close literacy gaps. Through consistent collaboration and clear expectations, the group observed successful outcomes. To that end, further work is needed to ensure fidelity of the program as well as clear communication about its relationship to special education referrals for evaluation.

5.12 Recommendations

The reading room study was an assessment of the implementation of a literacy intervention in a school district with the goal of providing information on the model's strengths and areas of need for program improvement. In its pilot year of building-level implementation, the reading room intervention model assisted in the success of many students reading at grade level

benchmarks by the end of the school year; however, some, who according to the teaching faculty may need greater support, did not thrive like others. To that end, a clear definition of the relationship between the Tier 2 reading room model to general education, to special education, and to the process for identifying students for special education referrals is needed. With this delineation, teachers would feel more informed and possibly more effective.

In addition, many of the concerns or questions were rooted in the fidelity of implementation. Teaching faculty and the building administrator found that the screening tools, interventions, small groupings, and time allocation were essential and effective; however, moving forward, a clear protocol, plan, and procedures template should be devised, and implementation of the plan should be monitored. This will allow for consistency of instructional delivery in the reading room environment as well as the core classrooms. Moreover, collaboration time will be needed to review monitoring of the program and to decide if adjustments are needed, recognizing that any small change will impact the fidelity of the original plan.

Furthermore, all participants noted the need for high-quality, trained reading teachers in the reading room. Due to the uncertainty of enrollment and related staffing needs, this area must be recognized by those monitoring and implementing the intervention. If a new teacher is placed in the model, professional development focusing on literacy pedagogy, screening tools, intervention/strategy implementation, and effective progress monitoring are essential. All currently implementing the intervention should also continue to receive ongoing professional development in those areas to strengthen their skill sets.

Feedback from this study demonstrates that the instructional elements of the intervention model are in place and have shown positive results. Teachers agree that the reduced class sizes with intensive and explicit instruction guided by continuous progress monitoring are effective. The

study also indicates that those involved in the intervention believe in the model and understand the urgency related to literacy acquisition in the primary years. Therefore, to strengthen the model, an increase in the fidelity of implementation the program and communication about its relation to special education is needed. Both can be accomplished through collaboration with the administrators and those implementing the intervention.

5.13 Recommendations for Further Research

The purpose of this inquiry was to evaluate the effectiveness of a primary "reading room" Tier 2 intervention pilot program and to make recommendations for ongoing improvement utilizing the CIPP Program Evaluation. Reading achievement/growth data and responses to interviews and surveys completed by teachers, paraprofessionals, and the building administrator were used to gather data for the study. Further research based on data collected during the study may be beneficial.

This study indicated confusion related to Tier 2 interventions given in alignment with general education initiatives and the connection to referrals for special education evaluations. Future research may be needed to determine an effective model of collaboration for general education teachers and special education teachers in Tier 2 support levels. Additional studies may help to identify co-teaching structures that allow for greater support before special education referrals are initiated. For example, it is important to identify a layered structure of support that begins in the Tier I general education environment. The Tier I environment may need to be differentiated by reading groups/levels with continuous progress monitoring that allows student progression levels to be compared to benchmark reading goals. This process may help to ensure

that those in need of Tier II reading support are properly identified. Once the appropriate students are selected for the Tier II support, the reading teaching and reading specialist must identify the specific area of need, whether it is identification of letters or sounds, blending, etc. If a student is found to have great needs in multiple areas, consultation with the reading specialist as well as the special education teacher may be beneficial. Teachers at each level of tiered support can provide their perspectives and together can devise a plan of support with continuous progress monitoring. If the student begins to progress through the Tier II environment, the plan is working. If not, intensity of instruction in the Tier II reading room may need to increase through small-group reading and word-building opportunities. Finally, if it is found that the student is still not making progress, a discussion of related special education services may need to begin with parent and teacher input.

Conversely, if a student in the Tier II support shows progress and begins meeting grade level benchmarks, a monitoring period should be established. Once all teachers are confident with the student's reading level and rate of skill acquisition, the child should be moved out of the Tier II support as quickly as possible. The goal of the reading intervention is to catch the students up to benchmark and move them back into the Tier I level of instruction.

Since this study was based on a pilot year of implementation, a cohort study of students who have participated in the reading room model and monitoring of their reading achievement levels would provide important data for further study and planning. The sample size of this study was somewhat small, which may have limited some of the findings. Therefore, additional data in other district settings as well as multi-year cohort data from the current site will be beneficial to understand further implications of the study.

The study found weakness in the area of fidelity. Further research may be needed to understand how to monitor fidelity by utilizing progress monitoring data and teacher reflections. Fidelity of implementation (FOI) refers to "the degree to which an intervention or program is delivered as intended" (Carroll, et al., 2007). Moving forward, more research is needed to understand monitoring or adjusting measures within an intervention while, if possible, adhering to the intended design of the intervention. With this idea, the concept of duration becomes interesting. What is the needed duration of an intervention for fidelity of implementation? According to Vaughn, et al. (2012), research suggests the duration of an elementary reading intervention should be at least eight to 16 weeks at 30 to 120 minutes a day. Therefore, the 90-minute reading block of Tier II support may allow an intervention to be modified closer to the eight to 10-week duration period. With that said, effective progress monitoring would need to be completed for data-based decisions to be achieved and for programming plans to be modified.

To that end, for this intervention to be employed in another setting or school district, a clear model of implementation would be needed with an understanding of when modifications can be made to the intended design. In addition, all members of the intervention team would need clear guidelines of support levels with aligned instructional materials and personnel. Overall, the intervention model is effective but will require additional funding to support staffing. However, as stated before, funding may still be needed due to remediation needs in later grade levels.

Literacy instruction is one of the most important components of students' path to success in school, and not all students will acquire the skills at the same time. Therefore, a reading room intervention model will provide the opportunities for all students to find the support they need and the success they deserve as young readers. This study shows that, on a small scale, the reading room intervention is effective; however, further work is needed to understand outcomes for a larger sample size.

Appendix A Letter to Superintendent

As you are aware, I am currently working to complete my doctoral degree at the University of Pittsburgh. Since my career began in education, I have always found myself drifting towards the study of literacy and the importance of literacy acquisition in the primary years. To that end, my doctoral work centers on primary reading intervention models with a direct focus on your district's implementation of a Reading Room Intervention Program. The purpose of my inquiry is to evaluate the effectiveness of the intervention using the CIPP Evaluation Model framework and to provide recommendations for improvement based on my research.

To gain a better understanding of the program, I would like to conduct a survey and interview process with kindergarten and first grade teachers, paraprofessionals, and a building administrator at the school of inquiry site. All participants will receive an email explaining the process, and invitation to participate, and an explanation of the intended use and anonymity of the results. The survey includes 26 multiple choice questions and will be disseminated via a Google Form. The interview will last approximately 20 minutes and will be conducted during non-instructional time and at the participants' convenience. The interviews will be recorded with participant permission. All results will be kept confidential and any identifying responses will be eliminated from the data reports. Any district identifiers will be removed from the data as well.

Please let me know if you require any further information. Thank you for your continued support.

Sincerely,

Lindsay Klousnitzer

████████@pitt.edu

Appendix B Email to Staff in School of Inquiry

As a primary teacher, paraprofessional, or building administrator, you are invited to participate in a survey designed to collect data relating to the implementation of the Reading Room Intervention Program in the district. Information gathered from this survey will be used as a part of a formative assessment of the program and is part of a dissertation study. The evaluation of the Reading Room Intervention Program will be completed using the CIPP Evaluation Model. The survey consists of 26 multiple choice questions and should take ten minutes to complete.

Your participation in this study is entirely voluntary. There is no direct benefit to you for study participation. You may withdraw from the study at any time. All results will be kept confidential; your name will not be included on any documents. Your response is very important to the success of this study. The information gained will provide valuable insight into practices and programs used in the school district.

If you have any questions or concerns about the survey, please contact me directly at ████████@pitt.edu. Thank you in advance for your help. Your participation is greatly appreciated.

Kindly,

Lindsay Klousnitzer

Survey Link

Appendix C Reading Intervention Survey

Reading Room Intervention Program Evaluation Survey:
Kindergarten and First Grade Teachers, Paraprofessionals, Building Principal

Directions: Please choose one answer to each question in the survey. You may provide additional information under comments at the end of question in the survey.

Demographics

1. Current Grade Level:
2. Number of years teaching at current grade level:
3. Number of years teaching experience:
4. Highest degree earned:

CIPP- Context (Program Needs, Goals, Basic Elements)

5. One goal of the reading intervention program is to ensure all students receive necessary instruction so that they read on grade level.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

   Comments:

6. The reading intervention program is a general education initiative.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

   Comments:

7. All students have the potential to achieve at high levels.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

Comments:

8. An effectively designed core curriculum is a key component of the reading
   intervention program.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

Comments:

9. The reading room intervention program is designed to provide high quality phonics
   instruction in a small group environment.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

10. The reading room intervention program is designed to provide high quality instruction
    and
    interventions according to individual student needs.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

CIPP- Input (Program Design)

11. The reading room intervention program is necessary to address the needs of struggling readers.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

Comments:

12. Interventions provided as soon as students begin to struggle help students overcome economic or environmental disadvantages.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

Comments:

13. The reading room intervention program provides effective intervention for all students.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

Comments:

14. The reading room intervention program is more effective than other programs or models for meeting reading needs of all students.

   A. Strongly Agree
   B. Agree
   C. Neither Agree nor Disagree
   D. Disagree
   E. Strongly Disagree

Comments:

15. The reading room intervention program helps to identify students in need of special education services.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

CIPP- Process (Implementation)

16. Data from universal screeners is analyzed to determine students in need of interventions.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

17. Research-based literacy materials are used to address student needs.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

18. Progress monitoring is used to determine the effectiveness of individual interventions.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

19. Teachers work together to address the needs of struggling readers.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

20. I am confident in my ability to implement the reading room intervention program.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

21. All elements of an intervention program- universal screening, tiered intervention, and progress monitoring- are implemented.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

22. The reading room intervention program is implemented with fidelity.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

CIPP- Product (Outcomes)

23. Universal screening measures (DIBELS, MAP) effectively identify struggling readers.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

24. The core curriculum meets the needs of most learners.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

25. Information from progress monitoring guides instructional decisions and interventions provided for students.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

26. The reading intervention program effectively meets the needs of struggling readers.

    A. Strongly Agree
    B. Agree
    C. Neither Agree nor Disagree
    D. Disagree
    E. Strongly Disagree

Comments:

Appendix D Email Invitation- Staff Interview

As a primary teacher, paraprofessional, or building administrator, you are invited to participate in an interview designed to collect data relating to the implementation of the Reading Room Intervention Program in the district. Information gathered from the interview will be used to gain a better perspective of the implementation of the intervention. The evaluation of the Reading Room Intervention Program will be completed using the CIPP Evaluation Model.

Your participation in the interview is entirely voluntary. The interviews will be scheduled during your available time and at your convenience. There is no direct benefit to you for interview participation. You can end your participation at any time or choose to skip any questions. All results will be kept confidential and data will be kept private. Data will be stored securely using a secure server. I will not publish any comments that may identify any participants or put anyone's employment at risk.

By consenting to participate in the interview, you are giving your permission to be audio recorded. If you have any questions or concerns about the interview or the research, please contact me directly at ████@pitt.edu. Thank you in advance for your help. Your response is very important to the success of this study. The information gained will provide valuable insight into practices and programs used in the school district. Please respond to this email if you are willing to participate in the interview.

Kindly,

Lindsay Klousnitzer

Appendix E Interview Questions

Appendix D.1 Questions for the Administrator

1. What conditions led to the district's decision to implement a reading room intervention program? (Context)

2. Before the implementation of the reading room, what programs were in place to address the needs of struggling kindergarten and first grade readers? (Input)

3. Why was a reading room program selected for use in the district? (Input)

4. What do you feel are the strengths of the program? (Context)

5. What challenges have you observed with the implementation of the program? (Context)

6. How do you monitor the implementation of the program? (Process)

7. How do you measure the level of fidelity of the implementation of the program? (Process)

8. How would you rate the quality of the implementation of the program? (Product)

9. How would you rate the effectiveness of the program? (Product)

Appendix D.2 Questions for the Teachers/Paraprofessionals

1. What are the goals of the reading room intervention program? (Context)

2. What did reading instruction for struggling readers look like in your classroom before the reading room intervention? (Input)

3. In your opinion, what are the strengths of the reading room intervention program?

   (Input)

4. In your opinion, what are the challenges of the reading room intervention program?

   (Input)

5. How do you ensure the program is implemented with fidelity? (Process)

6. In your opinion, how effective is the reading room intervention program? (Product)

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