A Program Evaluation Of Fundations In A Private Urban Elementary School

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A PROGRAM EVALUATION OF FUNDATIONS
IN A PRIVATE URBAN INTERNATIONAL SCHOOL

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

By
Megan Storey Hallam
May 2021
Dedication

This dissertation is dedicated to my amazing aunt. Margaret was born with Down Syndrome at a time when this diagnosis was associated with limited expectations. However, Margaret lived a life that exceeded expectations, inspiring and challenging those of us fortunate to be her family. Our family did not have the perception that Margaret was disabled, in fact, she genuinely was the boss in many ways. She was a self-advocate, determined, and undaunted when she faced challenges. She readily communicated her needs, but also her love for her family. Her self-confidence was enviable, she was always the first on the dance floor and was never afraid to show her moves. She was proud of her physical skills, participating in the Special Olympics and often challenging relative strangers to an arm wrestling match. When I grew old enough to realize that Margaret was different, I also already knew that other people with disabilities did not share Margaret’s experiences of access and advocacy. This reflection prompted my own decision to focus my career on special education and school psychology, so that I would be in a position to promote inclusion and opportunities for others. Margaret danced her way into heaven last year, but her life continues to inspire those who knew and loved her. It is an honor for me to dedicate this literacy focused dissertation to her, especially since she was quite a good reader and loved nothing more than applying this skill to searching for her favorite dishes on restaurant menus.
Acknowledgments

I would like to thank Dr. Steven Staples for his tremendous support and guidance. You kept me on track from the early days of this program and your encouragement motivated me just when I needed a final push towards the finish. I am also so grateful for the statistical guidance from Dr. Tom Ward and the time and support offered by Dr. Steven Constantino. In addition, I would like to thank Dr. Christopher Gareis and Dr. James Stronge, as they both provided critical feedback regarding this program evaluation during earlier stages of the process.

I would not have reached this stage of my degree without the support and friendship of my $50K friends. We forged our bond over discussions of Oxford commas and em dashes and I look forward to celebrating together now that we have completed our “terminal” degrees.

A very special note of appreciation to my head of school, Maria, who has been such a wonderful leader and friend. Thank you for bringing me to Rome all of those years ago and sharing so many adventures both at work and around the world.

I am so especially grateful for the love and support of my family during all of my educational experiences. To my parents, who encouraged me on every step of this journey and often found ways to support me in achieving some quite unrealistic goals, I cannot thank you enough. A special appreciation to my three brothers, you have certainly looked on in bewilderment as it looked more and more possible that I would be an eternal student, but your humor and love has kept me going. To Dave, you probably never imagined that our marriage would span five degrees between us, but we somehow made it! Thanks for sticking by me through all of this. Let’s cash in on those bets and pay off some student loans. My amazing children deserve special appreciation. Kyla and Noah, you have inspired me in so many ways and made me a better person and a better educator. I am so glad that our college journeys were
able to overlap in this unusual way and, on a practical note, I also appreciate all the tech support you offered!
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Abstract

Early reading skills are strongly associated with long term academic and life achievement. Despite the recognized importance of literacy, indicators point to a literacy crisis in the United States. Research and policies have highlighted the necessity of selecting reading programs with documented effectiveness and implementing them with fidelity. This mixed methods program evaluation investigated the extent to which the Fundations reading program is being implemented with fidelity at a private urban elementary school and if there has been a change in student reading performance since introducing the program. This study also explored teachers’ perceptions regarding program strengths and challenges along with their own competency and need for support. Both quantitative and qualitative data were collected in the form of implementation checklists, student running records scores, and a teacher survey. Findings indicated that the program is not scheduled for the prescribed frequency or length of lessons. This limited program exposure is significantly impacting overall fidelity, although ratings of adherence to the program and student participation are high. Despite program exposure issues, ANCOVA results demonstrated significant differences between student cohorts before and after Fundations was introduced. Post hoc analysis indicated that adjusted mean reading scores following Fundations implementation had increased by almost one full reading level compared to two out of the three years prior to the program. In addition, teachers identified professional development and implementation support as areas of need. Recommendations include allocating the minimum instructional time prescribed for Fundations, incorporating other measures of reading and approaches to analyzing reading data, increasing fidelity checks, and providing additional professional development.
A PROGRAM EVALUATION OF FUNDATIONS
IN A PRIVATE URBAN INTERNATIONAL SCHOOL
CHAPTER 1
INTRODUCTION

Background

The recognized importance of literacy has shaped education since at least the 1800s, when the “three Rs” were established as the basic tenets of education (Shaw, 2014). More recently, a variety of influences during the past two decades have further amplified the focus on reading and led to critical instructional and policy recommendations (Kilpatrick, 2015; Pearson & Hiebert, 2015). In 1997, the National Reading Panel (NRP) was established following a request from Congress to the National Institute of Child Health and Human Development to work in collaboration with the U.S. Department of Education. The task of the NRP was to evaluate the existing body of research and identify the most effective methods for teaching children to read. This initiative was significantly influenced by research conducted by the National Research Council Committee on Preventing Reading Difficulties in Young Children (Snow et al., 1998), which focused on environmental factors, critical skills, and instruction related to reading development.

The findings of the NRP were released in 2000 and highlighted five major components of reading instruction, all of which were rapidly established as essential for reading curriculum materials. These areas include phonemic awareness, phonics, vocabulary, fluency, and comprehension. Over the years, the NRP report has significantly influenced reading instruction (Kilpatrick, 2015; Pearson & Hiebert, 2015), and all five of the factors are reflected in the Common Core State Standards for English Language Arts & Literacy in History/Social Studies,
Science, and Technical Subjects that were finalized in 2010 (National Governors’ Association Center for Best Practices & Council of Chief State School Officers).

Since the publication of the NRP report in 2000, federal legislation and policies related to education have become increasingly more specific regarding instructional practices in the area of reading and literacy. A critical shift also occurred in the type of research-based support deemed important in selecting programs and interventions. The No Child Left Behind Act (2001) specified that instruction should be based on approaches supported by “scientifically based research” whereas the Every Student Succeeds Act ([ESSA], 2015) calls for schools to implement programs that are “evidence-based.” Previously, programs that were based on practices related to supportive research findings were acceptable. In contrast, under ESSA, individual programs and practices must be evaluated in terms of proven effectiveness in improving student achievement.

Despite all of this attention to reading instruction, there is strong evidence to suggest that the United States continues to face a literacy crisis. In 2015, only 37% of Grade 12 students performed at or above the proficient level in reading, as measured by the National Assessment of Educational Progress 12th grade reading assessment (National Center for Education Statistics, 2019). A comparison to student performance in 2013 revealed no significant improvements in reading levels since the prior results and, even more concerning, the 2015 results were lower than the first national assessment in 1992 (National Center for Education Statistics, 2019). Numerous studies have confirmed the critical importance of students learning to read by the third grade, as well as the strong association between literacy skills in younger students with achievement in later grades (Annie E. Casey Foundation, 2010; Sparks et al., 2014; Stanley et al., 2017). Given the plethora of evidence regarding the underperformance of American students
in reading, along with the central importance of reading for students’ success, it seems clear that it is essential for educators to identify and implement practices which support the development of reading skills for students in preschool through third grade.

**Selection of Evidence-Based Reading Programs**

As researchers continue to investigate the persistence of literacy concerns one factor emerges as a potential contributor to this issue. Specifically, when confronted with a vast array of core reading program options, which ones really work to improve students’ reading ability? Educators often assume that programs or practices based on established instructional approaches are effective, even though many of these have not been reviewed or individually researched (Goss & Brown-Chidsey, 2012; Tobin & Calhoon, 2009). In 2017, a K-12 Reading Market Survey Report indicated that the overwhelming majority of American schools were relying on dozens of different commercially produced reading programs for core instruction, a trend that continues to expand (Simba Information, 2017). Some resources exist to assist in selecting appropriate programs, but educators may be surprised to find that there are few options that meet established research criteria for demonstrating a positive impact on student outcomes (Goss & Brown-Chidsey, 2012; Tobin & Calhoon, 2009). In 2002, the Institute of Education Sciences, within the U.S. Department of Education, established the What Works Clearinghouse (WWC) website. The aim of the WWC is to evaluate research results and determine what is effective in education. The WWC literacy section includes a review of 228 reading interventions, which denotes anything that qualifies as an “educational program, product, practice or policy” related to literacy. Out of 228 interventions, only 56 currently demonstrate positive or potentially positive impacts on student outcomes as determined by WWC criteria. The Center for Research and Reform in Education at Johns Hopkins University School of Education also developed the
Evidence for ESSA website to assist educators in determining which reading and math programs meet ESSA evidence standards. Only 20 whole class reading programs demonstrated strong evidence according to ESSA criteria, and an additional two programs were rated as providing moderate evidence.

Educators are presented with an overwhelming array of choices when selecting a reading program for their setting. Some programs do not yet have sufficient research evidence to demonstrate effectiveness or they may not have been studied in the context for which they are being considered. Teachers may have access to evidence-based programs but, for various reasons, they may not deliver instruction with fidelity. Therefore, in consideration of the absolute importance of literacy and in response to the ESSA guidelines promoting the use of evidence-based programs, there is a critical need for researchers and educators to investigate program effectiveness when choosing and implementing reading programs.

**Response to Intervention and Effectiveness of Core Curriculum**

One framework that has the potential to guide schools in determining the effectiveness of their selected curriculum is Response to Intervention (RTI). RTI is a multi-tiered approach to supporting student achievement that is founded on continual evaluation of the curriculum (Fuchs & Fuchs, 2016; Harlacher et al., 2015; Wixson, 2011). A central activity to this framework is frequent student progress monitoring. Schools following this approach are advised to adjust their core curriculum if progress monitoring data indicate that fewer than 80% of students are meeting benchmarks within the general curriculum (Blackburn & Witzel, 2018; Harlacher et al., 2015; Preston et al., 2016; Wixson, 2011).

Evidence-based core reading programs must also be implemented as designed in order to be effective, which is why fidelity of implementation is another fundamental component of the
Researchers have demonstrated that student achievement improves when teachers deliver instruction as designed (Azano et al., 2011; Benner et al., 2011). However, research also suggests that many teachers do not adhere to program specifications and pacing guidelines when implementing programs, for reasons ranging from personal choice to lack of professional development (Bingham et al., 2016; Kretlow & Helf, 2013).

The RTI model, which promotes a continual focus on evaluating the core curriculum and ensuring fidelity of instruction, provides critical guidance to schools in meeting the expectations of ESSA. Schools implementing RTI have ready access to data indicating whether current reading programs are effective and are therefore well positioned to make programmatic decisions that directly impact student outcomes.

Program Description

Context

Allegra (pseudonym) is a Pre-K through Grade 12 school located in New York City. Allegra serves a diverse and international student body of 921 students representing over 70 nationalities. This program evaluation will focus on the implementation of the Fundations curriculum in Grades K-2. Around 90 total students are enrolled in these grades with an average class size of 15.

Allegra closely adheres to the RTI model in continually evaluating the core curriculum, monitoring fidelity, and identifying students who require extra support. Allegra also follows the approach to reading and writing instruction developed by Teacher’s College Reading and Writing Project ([TCRWP], n.d.) and uses their running records assessments to monitor student progress. Running records are reading assessments that were initially developed for use with Reading Recovery programs, although they are now widely used in classrooms to inform
instruction and provide benchmark and progress monitoring data. These assessments measure “contextual reading accuracy and student strategy use in which students read leveled connected passages under untimed conditions” (Fawson et al., 2006, p. 113).

Analysis of Allegra’s student progress monitoring data during the 2015-2016 and 2016-2017 school years indicated that the percent of students in Grades K-2 who were making appropriate progress and meeting grade level benchmarks for reading performance as measured by running records assessments ranged between 38-81%, as shown in Table 1. The council also reviewed school results on the 2016 Reading Comprehension section of the Comprehensive Testing Program, a standardized assessment developed by the Educational Records Bureau (n.d.) that is administered each spring to students in Grades 2-9. This analysis revealed that 24% of fourth grade students, 23% of third grade students, and 15% of second grade students at Allegra were demonstrating reading comprehension skills in the below average range. Together, this information prompted the Allegra Curriculum Council to collaborate with administrators, grade-level leaders, and teachers to research various programs to supplement the Language Arts curriculum. The council ultimately selected Wilson Fundations after an extensive vetting process.

Table 1

Percent of Student Running Records Scores Meeting or Exceeding End of Year Benchmarks by Grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>2016-2017</th>
<th>2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>70%</td>
<td>75%</td>
</tr>
<tr>
<td>1</td>
<td>70%</td>
<td>76%</td>
</tr>
<tr>
<td>2</td>
<td>38%</td>
<td>81%</td>
</tr>
</tbody>
</table>
**Program Description**

Fundations is a commercially produced reading program published by Wilson Language Training Corporation. Developers assert that the program incorporates the five components of reading identified by the NRP and describe Fundations as a “multisensory and systematic phonics, spelling and handwriting program for K-3 students designed to provide core reading instruction and reduce later reading difficulties” (Wilson Language Training Corporation, n.d.). Fundations includes comprehension strategies but manuals indicate that it must be combined with a literature-based language arts program.

The curriculum council decided to pilot Fundations with the entire first grade during the 2017-2018 school year, which was a cohort of 45 students across three classrooms. All teachers completed Fundations training for the core Fundations program, which includes 30 minutes of scripted daily instruction in letter formation, sound mastery, phonological and phonemic awareness, phonics, word study, and comprehension strategies. Based on teacher feedback and a slight increase on mid-year running records assessments, the curriculum council decided to implement the Fundations program in all K-2 classrooms for the 2018-2019 school year. Since Wilson advises schools that Fundations must be combined with a literature-based reading program, the school continued implementing the TCRWP (n.d.), which fulfills this recommendation.

Despite initially positive feedback and trends, the curriculum council identified some potential drawbacks regarding the implementation of Fundations at Allegra. A critical concern related to fidelity and whether the pacing and instructional components adhered to lesson plan guidelines. The council also noted the additional teacher time requirements to prepare materials and conduct weekly progress monitoring. In addition, there were concerns regarding the lack of
research evidence demonstrating the effectiveness of Fundations, especially in a setting similar to Allegra, which is a small private international school. The council was not able to find any reading programs with demonstrated effectiveness for a similar population of students and would like to ensure that Fundations is supporting the reading development of students in this setting. Due to these mixed findings, and in the context of the additional expectations for teachers and use of school resources, it is critical to evaluate the effectiveness of the Fundations curriculum at Allegra Manhattan.

**Logic Model**

A logic model was created to provide an overview of the program (Figure 1). The model depicts the process that began after the specific decision to select Fundations over other possible curriculum programs and provides a brief overview of Fundations.

**Inputs.** The inputs in this model include the Wilson research base and the Fundations program along with the additional instructional time allocated for this instruction. Additional inputs include funding for Fundations and the associated training and materials. This logic model recognizes participants and stakeholders who are most directly involved in the program as inputs, such as Allegra teachers and administrators. Stakeholders further removed from the school setting, such as the product developers at Wilson or community members and organizations, such as local reading tutors, are not included in the scope of this model. Administrators, K-2 grade level teachers and learning specialists are included as inputs and also participants under the Outputs section of the model since they are involved in the training as well as the delivery of the Fundations program. Other participants include all students in Grades K-2.

**Process.** The team identified these inputs as essential based on Fundations program guidelines and previous experience with implementing new curriculum, so the model proposes
Figure 1

Allegra Fundations Program Logic Model

Context
Allegra is an international PK-12 grade school in Manhattan. Data indicated that less than 20% of students were making adequate progress on measures of early reading skills so the school decided to implement Fundations as part of the core reading instruction.

Program
Fundations is a multisensory and systematic phonics, spelling and handwriting program for K-3 students designed to provide core reading instruction and reduce later reading difficulties.

Inputs
- Wilson Research base
- Fundations program
- K-2 Grade level and Learning Specialist Teachers
- Administrators
- Increased time for core reading program (30 minutes)
- Funding for program materials and professional development

Process
- K-2 Students
- Core Fundations Program
  - Letter formation and sound mastery
  - Phonological and phonemic awareness
  - Phonics, and word study
  - Comprehension strategies
  - Progress monitoring
- Increased reading scores on running record assessments:
  - Accuracy
  - Comprehension

Activities
- Professional development
- Increased reading comprehension and basic literacy skills

Product
- Stronger reading comprehension and basic literacy skills
- Higher scores on SAT/ACT
- Graduates who demonstrate strong communication and literacy skills
- Increase scores on standardized measures of reading

Assumptions
- Program implemented with fidelity (materials, training, time)
- Fundations is effective for students exposed to other languages at home
- Student population does not have a higher than average rate of specific learning disabilities in reading

External Factors
- Teacher attrition
- Student transfers
that these inputs will be adequate to support the delivery of the Fundations program. A specific relationship links teachers, as inputs, and their participation in professional development, under process, to the implementation of the Fundations program, since teacher training should strengthen fidelity of implementation and enhance instruction in the targeted areas. Regarding activities, the core Fundations program is highlighted since fidelity of instruction is a process component that will be a focus for the proposed program evaluation. Notably, both teacher attrition and student transfers are identified as external factors that may impact the program since the program activities are taught over a period of time and predicted outcomes assume stability of participants. In addition to professional development, the program activities include the core Fundations program, which includes instruction in letter formation, sound mastery, phonological and phonemic awareness, phonics, word study, and comprehension strategies.

**Product.** The logic model indicates that the Fundations curriculum is expected to align with the identified short-term outcomes since research indicates a strong relationship between the curriculum components and performance on measures of phoneme segmentation, phonics, and students’ word reading skills (Duff et al., 2016; Melby-Lervåg et al., 2012). Indicators of these short-term outcomes therefore include increases in scores on running records assessments, and student performance on this measure is highlighted as an area of investigation for the proposed program evaluation.

The theory of action for this model further indicates that these short-term outcomes will lead to medium term outcomes. Fundations and related research suggest that stronger phonemic and word reading skills will, over time, strengthen reading comprehension, so that is included as a medium-term outcome (Duff et al., 2016; Marzola, 2011). Stronger reading comprehension skills will work along with improved basic reading skills to reduce the number of students who
are referred to the Student Support Team or Tier 2 school programs for extra support. This is also based on an analysis of referral data indicating that the majority of students referred to the Student Support Team for academic concerns were demonstrating low performance on progress monitoring measures of phonemic awareness and oral reading skills. In addition, Fundations instruction is theorized to lead to improved standardized scores on the Reading Comprehension subtest of the Comprehensive Testing Program, a standardized assessment administered at Allegra Manhattan in second through ninth grade (Educational Records Bureau, n.d.). Simmons et al. (2008) conducted longitudinal research and found that students who had explicit “code” and structured instruction in Kindergarten had the best reading outcomes in third grade, a finding replicated in other longitudinal studies of reading skills (Sparks et al., 2014; Stanley et al., 2017).

The long-term outcomes of the model are also based on research linking early reading skills to standardized measures of verbal abilities in later grades (Simmons et al., 2008; Sparks et al., 2014; Stanley et al., 2017). Therefore, the model depicts an if-then relationship, theorizing that by implementing Fundations and strengthening foundational reading skills students will ultimately demonstrate stronger performance on standardized tests such as the SAT or International Baccalaureate (IB) exams. Additionally, since reading abilities in Grades K-3 are associated with later performance, the model indicates that students who participate in Fundations instruction will display stronger literacy skills as young adults.

Assumptions of the Model. There are also some critical assumptions associated with this model, specifically that the Fundations program will be consistently implemented with fidelity, and that the population at Allegra does not have a higher than typical rate of students with a Specific Learning Disability in Reading, who would require a more intense level of reading
instruction and intervention. In addition, the logic model focuses on the implementation of Fundations at Allegra Manhattan and is not a direct program evaluation of Fundations.

**Purpose of the Study**

The goal of this proposed program evaluation is to investigate whether implementation of Fundations, a commercially produced core reading program, leads to improved student outcomes at a small private school in Manhattan. The WWC website reports that there are no studies of Fundations which meet evidence standards (2007). Similarly, Evidence for ESSA indicates that no studies meet inclusion requirements for consideration with regard to ESSA criteria (n.d.). Valid evaluations of educational programs are contingent upon the fidelity of the program delivery, so this factor will also be investigated.

**Overview of the Evaluation Approach**

**Evaluation Model**

This program evaluation represents the pragmatic paradigm and focused on collecting a variety of information that would be useful to stakeholders (Mertens & Wilson, 2012). A mixed-methods approach was used to analyze data from observations, teacher surveys, and student assessments. This approach resulted in an evaluation with a distant approach with participants since the researcher used extant data from assessments and did not directly conduct the observations or survey. Since the study examined both implementation issues and short-term outcomes, the researcher determined that the Context, Input, Process, Product (CIPP) model, with a specific focus on process and product evaluations, would be well suited to address these aims (Stufflebeam, 2002).
Purpose of the Evaluation

The purpose of this program evaluation was to improve implementation and determine whether there was evidence of the predicted short-term outcomes. Since this program is still in the early stages, the information from this program evaluation will be used for formative purposes. The audience for this program evaluation includes the head of school and the Allegra Curriculum Council. This council is composed of upper and lower division heads, director of early childhood, director of learning support and curriculum leaders from all major subject areas across divisions.

Focus of the Evaluation

The two main areas of focus for this evaluation were process and product.

Process. The program evaluation first attended to process and whether the program was being implemented with fidelity. The critical components of Fundations instruction have been identified by the program developer and provided in the form of checklists to guide both teachers and observers in evaluating the quality of implementation for individual lessons. The third evaluation question further explored teacher perceptions regarding the Fundations program, based on responses to a school developed survey. Survey questions focused on program strengths and challenges along with self-reported assessments of competency and areas in need of support.

Product. A second area of inquiry focused on product evaluation and examined the impact and outcomes of the program. Mertens and Wilson (2012) indicate that product evaluations can focus on various temporal outcomes and this program evaluation addressed short-term outcomes. The short-term evaluation determined the extent to which there is an impact on running records assessment scores, as described in the second evaluation question.
Evaluation Questions

The evaluation questions selected for this program evaluation attended to both process and short-term outcomes. A main area of focus for this evaluation was concerned with the process of implementation fidelity since that was a noted concern prior to adopting the program and also directly impacts the potential of predicted outcomes (Wilson Language Training Corporation, n.d.). This area was addressed by the first evaluation question. Fidelity also relates to teacher perceptions regarding their competency in delivering instruction and their need for additional support to teach the program as prescribed. These areas were explored in the third research question, which also focused on teachers’ perceptions regarding program strengths and challenges. A second major area of inquiry sought to determine if any short-term outcomes were evident, therefore, the second question focused on running records scores as a measure of student progress.

Questions addressed by this evaluation include:

1. To what extent are selected key components of the program implemented with fidelity based on Fundations’ Learning Activity Self-Study Checklists as reported by teachers and observers?

2. What was the impact on first grade student reading performance as measured by running records assessments following implementation of Fundations during the 2017-2018 school year?

3. What are participating teachers’ perceptions regarding Fundations in terms of the following aspects of program implementation:
   a. How equipped and knowledgeable do teachers feel in delivering Fundations program instruction?
b. What are perceived program strengths or highlights?

c. What are perceived program weaknesses or challenges?

d. What are areas in which teachers would like more support in delivering the Fundations program?

Definitions of Terms

- **core curriculum**: instruction provided to all students that serves as the foundation of the academic program. Also known as primary, universal, or core instruction (Wixson, 2011).

- **benchmark assessments**: fixed assessments administered at specific times throughout the school year to evaluate students’ progress relative to grade level standards or longer-term learning goals (Wixson, 2011).

- **fidelity**: how closely implementation and instruction of a program aligns with how it was intended by program developers (IRIS Center, 2014).

- **fluency**: reading text accurately and smoothly (NRP, 2000).

- **phonemic awareness**: understanding that words are composed of a combination of individual sounds (Shanahan, 2005).

- **phonics**: the relationship between written letters and associated sound (NRP, 2000).

- **progress monitoring**: practices which measure student progress and provide information regarding the effectiveness of instruction (Wixson, 2011).

- **reading comprehension**: understanding what has been read. This skill may involve making predictions and inferences, drawing on prior knowledge, and summarizing (NRP, 2000).
• **Response to Intervention (RTI)**: a multi-tier approach that provides differentiated instruction and support to students based on their level of need (Wixson, 2011).
  
  o **Tier 1**: regular classroom instruction that is high quality, delivered by a certified teacher, and built on evidence-based practices. Student progress is regularly monitored and most students, around 80%, make appropriate progress within the general curriculum and are considered to be in Tier 1.
  
  o **Tier 2**: targeted instruction for students who are not demonstrating adequate progress in Tier 1. Students in this group require small group interventions in addition to the core curriculum. Around 15% of students fall within Tier 2.
  
  o **Tier 3**: intense individualized instruction for students who demonstrate skills that are significantly below grade level and who do not make progress with the targeted interventions provided in Tier 2. Students in Tier 3 typically represent around 5% of the student population.

• **running records**: reading assessments during which students read leveled passages aloud and teachers measure accuracy based on the number of words read correctly after subtracting for miscues. During the assessment, teachers note word substitutions, self-corrections, repetitions, and omissions. Students are also asked to retell the story and answer four comprehension questions. Reading level is determined by attainment of 96% reading accuracy and answering at least three out of four comprehension questions correctly (Clay, 2000).
CHAPTER 2
REVIEW OF RELATED LITERATURE

The purpose of this literature review is to examine the essential components of reading instruction and explore how a specific reading program can be evaluated at the school level. This review first focuses on the five major areas of instruction that have been consistently identified as fundamental and critical to reading development. Next, RTI is presented as an approach that guides schools in evaluating the effectiveness of instructional programs. Program fidelity and evidence for the use of running records as a measure of reading performance are also discussed as related components of this program evaluation. The literature review concludes with a description of Fundations, the reading program at the focus of this program evaluation, along with a review of associated literature.

The Five Essential Components of Reading

Reading is well established as one of the most important and foundational academic skills. Students who have not learned to read by the end of third grade will not be able to readily access grade level material in other subjects, since it is at this juncture that students finish learning to read and transition to reading to learn (Annie E. Casey Foundation, 2010; Sparks et al., 2014; Stanley et al., 2017). Since the development of early reading skills is strongly associated with later performance there has been considerable research in this area over the past two decades. Researchers have specifically emphasized the importance of the five essential components of effective reading instruction first identified in the report of the NRP in 2000. These areas include phonemic awareness, phonics, vocabulary, fluency, and comprehension.
**Phonemic Awareness**

Phonemic awareness is the ability to hear, identify, and manipulate individual sounds in spoken words (Shanahan, 2005). The smallest units of sounds are called phonemes and children vary in their ability to recognize these sounds within words. Initial sounds are easiest for children to identify and should be the first area of focus for instruction, followed by ending and then middle sounds (Hudson et al., 2012). Phonemic awareness also relates to holding on to those sounds in memory in order to blend the sounds into words or separate sounds in a word. The phonemic awareness skills associated with the largest impact on later reading achievement include segmenting, or dividing words into sounds, and blending, which refers to the ability to pronounce all of the sounds together to form the word (Melby-Lervåg et al., 2012).

Phonemic awareness is considered one of the best predictors of reading success and a strong body of research consistently indicates an association between phonemic awareness and word-reading skills (Concannon-Gibney, 2019; Melby-Lervåg et al., 2012; NRP, 2000). In addition, a meta-analytic review of 235 studies further demonstrated a moderate correlation between phonemic awareness and individual differences in word reading skills, an effect that was present even after controlling for verbal short-term memory and rime awareness abilities (Melby-Lervåg et al., 2012).

**Phonics**

Phonics relates to instruction regarding how letters and sounds correspond and the use of this knowledge to decode and pronounce written words (Concannon-Gibney, 2019; NRP, 2000; Shanahan, 2005). These letter-sounds relationships are the foundation for reading text and are also essential for writing. Using phonics, students approach reading unknown words by focusing on the sounds of each letter or letter combination and then blending those sounds together to read
the word. Phonics instruction includes a focus on consonants, consonant blends, consonant digraphs, and short and long vowels.

Strong phonics skills assist with decoding and research has consistently supported the critical role of systematic and explicit phonics instruction in the development of reading skills and future reading achievement (NRP, 2000; Shanahan, 2005). Aside from directly teaching sound-letter relationships, effective phonics instruction should include activities in which students try to write and spell words based on sounds. Multisensory methods are encouraged, and students should receive phonics instruction until they can easily decode words (Concannon-Gibney, 2019; Shanahan, 2005).

**Fluency**

Fluency represents the ability to smoothly and accurately read text and is considered to encompass three key elements: accuracy, expression, and pace (Concannon-Gibney, 2019; NRP, 2000; Shanahan, 2005). Accuracy relates to correctly reading the word. Expression, or prosody, represents the ability to use intonation and include appropriate pauses so that meaning is conveyed. Pace indicates whether the speed is appropriate for comprehension and neither too fast nor too slow.

Fluency develops from repeated reading practice and represents the development of increased word recognition skills since fluent readers rely less on decoding and more on sight reading. Instruction in oral reading fluency has been shown to improve students’ abilities in decoding, word recognition, and reading achievement, and students who are able to read fluently have stronger skills in reading comprehension (NRP, 2000; Shanahan, 2005). Reading instruction should provide ample opportunities for students to practice oral reading and to also receive individualized feedback (Shanahan, 2005). Appropriate instructional activities include
re-reading familiar text, listening to a fluent reader, paired reading, and participating in choral reading (Concannon-Gibney, 2019).

**Vocabulary**

Vocabulary refers to understanding the meanings of words and there is a strong and well established relationship between vocabulary knowledge and reading comprehension (NRP, 2000; Snow et al., 1998). Students are exposed to new vocabulary indirectly through listening and speaking to others, listening to someone reading to them, and also when they read on their own. Direct vocabulary instruction also occurs in the classroom when they are explicitly taught new vocabulary that is relevant to a lesson. Research has supported the importance of teaching students the meanings of word roots and affixes as well as techniques to determine word meaning from context (NRP, 2000; Shanahan, 2005). Vocabulary instruction should be integrated with other subjects rather than taught in isolation so that words can be taught in context and encountered repeatedly (Shanahan, 2005). In addition, instruction should discourage simple word definition activities and, instead, provide opportunities for students to think deeply about word meanings by completing semantic mapping and making connections between words.

**Comprehension**

Comprehension is the eventual goal of reading development and this term captures the active process of understanding and making meaning of text (NRP, 2000; Shanahan, 2005). Comprehension involves much more than simply recalling information since readers must interact with and interpret what they are reading, activating prior knowledge and making inferences when information is not explicitly stated. Research has identified a variety of effective reading comprehension strategies (NRP, 2000). These strategies are initially introduced and guided by the teacher. Eventually the application of strategies must become internal and
independent and also used consciously and purposefully by the reader. This highly effective instructional approach is typically referred to as \textit{gradual release of responsibility} (Concannon-Gibney, 2019; Shanahan, 2005).

Reading aloud to younger students provides an opportunity to begin teaching a variety of comprehension strategies. Students can be guided in making predictions about what will happen next, to ask questions, and to make connections with experiences and situations in their own lives. (Concannon-Gibney, 2019). As students begin reading on their own, instruction progresses to more complex strategies, and students should have access to easily decodable text in order to practice strategies independently. Some of the most effective strategies include summarizing, predicting, inferring, visualizing, questioning, story maps, graphic organizers, and monitoring comprehension (Concannon-Gibney, 2019; NRP, 2000; Shanahan, 2005). The use of multiple strategies in combination is much more effective than using a single strategy in isolation (NRP, 2000; Shanahan, 2005).

Research conducted since the identification of the five essential components of reading indicates that simply addressing these instructional areas does not guarantee that a program will be effective, suggesting that other factors play a key role in reading instruction (Annie E. Casey Foundation, 2010; IRIS Center, 2014). Researchers have further demonstrated the impact and importance of explicit and highly structured instruction on reading development (NRP, 2000; Simmons et al. 2008). Explicit instruction typically refers to practices which include direct explanations, modeling, guided practice, independent practice, feedback, and discussion (Reutzel et al., 2014). Therefore, programs based on the five essential components of reading must be complemented with these instructional approaches and subsequently evaluated for effectiveness. One school level approach to monitoring the effectiveness of a reading program is RTI.
RTI

RTI is a “comprehensive, systemic approach to teaching and learning designed to address learning problems for all students through increasingly differentiated and intensified assessment and instruction” (Wixson, 2011, p. 503). The RTI model groups students in three tiers based on assumptions regarding student response to core instruction. Most students, around 80%, make appropriate progress within the general curriculum and are considered to be in Tier 1. Around 15% of students fall within Tier 2 because they do not demonstrate adequate progress. Students in this group require small group interventions in addition to the core curriculum. Students in Tier 3 typically represent around 5% of the student population. These students are significantly below grade level and need specialized and intense interventions to make progress (Preston et al., 2016; Wixson, 2011).

A fundamental goal of RTI is to ensure quality instruction in Tier 1 and improve core instruction (Blackburn & Witzel, 2018; Frey & Fisher, 2017; Fuchs & Fuchs, 2016). Therefore, the first step for schools following an RTI approach is to examine the core curriculum to determine if 80% of students are meeting expectations (Harlacher et al., 2015; Riley-Tillman et al., 2013; Wixson, 2011). This step requires schools to collect screening data from all students, typically scheduled for a minimum of at least three times during the school year. These measures are generally referred to as benchmark assessments and student performance is evaluated according to set criteria. School teams are advised to adjust the core curriculum if data indicate that less than 80% of students are making appropriate progress within the general curriculum, reinforcing the critical importance of identifying reading programs that are effective (Blackburn & Witzel, 2018; Harlacher et al., 2015; Preston et al., 2016; Wixson, 2011).
**Fidelity**

Evidence-based core reading program will only be effective if they are delivered as intended, and the RTI model places considerable emphasis on fidelity of implementation. Fidelity of implementation refers to consistently and accurately delivering the program or practice as designed by the researchers or developers (IRIS Center, 2014; Johnson et al., 2006). When programs are implemented with fidelity, student achievement improves (Azano et al., 2011 Benner et al., 2011, O’Donnell, 2008). Therefore, in conducting a program evaluation of curriculum materials, it is critically important to assess the degree to which implementation aligns with the program design, since failure to consider fidelity would otherwise limit conclusions from the evaluation (Azano et al., 2011).

Despite the obvious importance of this issue, there is relatively limited attention regarding fidelity in the context of researching K-12 core curriculum programs. Various models of conceptualizing and measuring fidelity exist and share some key constructs, which provides some guidance to researchers and educators for the evaluation of K-12 curriculum (Dane & Schneider, 1998; Gresham et al. 2017; O’Donnell, 2008). Building on base concepts from earlier models, O’Donnell (2008) researched a five-component framework for examining fidelity of implementation in K-12 curriculum. The fidelity components identified include adherence, exposure, program differentiation, quality of delivery, and participant responsiveness (Dane & Schneider, 1998; O’Donnell, 2008). *Adherence* considers whether the instruction is delivered as intended. Assessments of *Exposure* evaluate whether the instruction occurs for the prescribed number of lessons, lesson length of time and frequency of lessons. *Quality of delivery* focuses on specific characteristics of instruction, including the techniques used by the teacher in delivering instruction. Evaluations of *Program differentiation* examine whether critical features are present
that distinguish the program from another curriculum. Participant responsiveness measures whether the students’ involvement and engagement in the lesson is consistent with the intent of the program developer. Quite importantly, researchers in this area suggest that evaluations of fidelity focus in on one or two areas rather than attempting to assess all five components simultaneously (Azano et al., 2011; O’Donnell, 2008).

There are also two main methods for assessing fidelity of implementation. Direct assessment refers to when another qualified educator observes the instruction of a teacher, typically utilizing a standard set of criteria. Indirect assessment includes self-reports and interviews (Johnson et al., 2006. There are noted concerns for the validity of some indirect measures, especially regarding inflated self-reports of fidelity, and it is therefore recommended to complement indirect measures with direct assessments when possible (Hansen et al., 2014; IRIS Center, 2014; Noell et al., 2005).

Ultimately, researchers suggest that teachers often do not adhere to program specifications and pacing guidelines when implementing programs, for reasons ranging from personal choice to lack of professional development (Bingham et al., 2016; Kretlow & Helf, 2013). Additional factors that have been shown to impact fidelity include complexity, which includes time, requirements for resources and materials, teachers’ effectiveness, teachers’ perceptions about their effectiveness, and teacher expertise and motivation (Azano et al., 2011). FOI is also related to the availability and quality of initial training and ongoing support (Fletcher & Vaughn, 2009; Kretlow & Helf, 2013) and many teachers experience difficulty maintaining fidelity after initiating a new program or practice (IRIS Center, 2014). Together, this body of research underscores the critical importance of examining fidelity in the context of evaluating the effectiveness of core curriculum.
Running Records

Clay (2000) first introduced running records as assessments for Reading Recovery programs and they are now widely used in classrooms to inform instruction and measure the development of reading skills (Concannon-Gibney, 2019; Fawson et al., 2006; Shea, 2012). Running records specifically measure “contextual reading accuracy and student strategy use in which students read leveled connected passages under untimed conditions” (Fawson et al., 2006 p. 113). Shea (2012) further asserts that running records are appropriate and authentic benchmark measures that “assess multiple aspects of a child’s literacy development (e.g., decoding skills, fluency, vocabulary knowledge, comprehension, and expressive language skills) in a reasonably short period of time” (p. 17). Concannon-Gibney (2019) emphasizes that these measures can provide especially relevant information about students’ skills in using self-correction to monitor comprehension and also how students are incorporating semantic and syntactic cueing systems. In addition, running records fulfill the recommendation that classroom performance on relevant curriculum based measures serve as indicators of responsiveness to instruction (Fuchs & Fuchs, 2016).

Running records assessments include both informal or teacher developed text samples as well as selections that have been formally identified and standardized for particular grade levels. Teacher’s College Reading and Writing Project ([TCRWP], n.d.) has developed a set of running records that are approved by New York as assessments for Student Learning Objectives and are therefore used in many classrooms across the state, including in the school selected for this program assessment.
**Fundations Reading Program**

Fundations is a commercially produced reading program published by Wilson Language Training Corporation. Developers report that the program is based on the five critical components of reading first specified in the NRP report and describe Fundations as a “multisensory and systematic phonics, spelling and handwriting program for K-3 students designed to provide core reading instruction” (Wilson Language Training Corporation, n.d.). Fundations includes comprehension strategies but manuals indicate that it must be combined with a literature-based language arts program “to address comprehension and writing more thoroughly” (Wilson Language Training Corporation, 2018, p. 2).

Fundations incorporates several research-based instructional principals. Lessons are explicit, structured, and sequential. Activities are based on a gradual release model and transition from teacher modeling or “I do it” to guided instruction with a “we do it” design. This is followed by a “you do it together” collaborative approach before reaching the independent stage of “you do it alone” (Wilson Language Training Corporation, 2018, p. 6). Instruction is multisensory and involves the visual, auditory, tactile, and kinesthetic senses. Lessons also provide for considerable repetition with a goal of mastery learning and manuals indicate that students should score 80% or higher on assessments before moving to the next unit (Wilson Language Training Corporation, 2018).

All levels of Fundations are yearlong programs and include 30 minutes of scripted daily instruction. Level 1, taught in first grade, provides 34 weeks of instruction across 14 specific units and focuses on phonemic awareness, phonics and word study, fluency, print concepts, high frequency words, handwriting, and spelling. This level introduces students to digraphs, long vowel sounds, multisyllable words with short vowels, base words, and suffixes. Lessons
emphasize encoding and decoding but also include vocabulary, fluency, and writing activities. More specific information about the Scope and Sequence of the Fundations Level 1 program is provided in Appendix A.

There are several consistent multisensory activities that form the core daily instruction of Fundations. Puppets are used to introduce letters and corresponding sounds. Letters are presented along with a gross motor activity called skywriting in which students form letters in the air. Students are taught a finger tapping technique for identifying and blending phonemes and use sound cards and letter tiles to spell out sounds and words. Instruction also focuses on both letter to sound and sound to letter connections while using keywords to link letters and sounds. During an activity called Storytime, students engage in echo and choral reading of short, narrative stories (Wilson Language Training Corporation, 2018).

The Fundations Teacher’s Kit includes a comprehensive set of 24 different materials necessary for implementing the program. Along with the teacher’s manual, educators are provided with Activity Cue Cards to ensure that lessons include all components and are delivered in the correct sequence with the necessary materials. Fundations materials specifically emphasize the important role of implementing the program with fidelity, to include lesson length, order of activities, and pacing (Wilson Language Training Corporation, 2018, p. 23). To promote fidelity, teachers attend initial teacher training and then have ongoing access to additional workshops, virtual coaching, demonstration sites with on-site coaching, and an online teacher support community.

Studies of Fundations

Currently, there are no published peer-reviewed studies regarding the efficacy of Fundations as a component of a core reading program. However, other informal studies of
implementation and research related to the Tier 2 applications of Fundations provide important and relevant information regarding the program.

The Wilson Language Training Corporation (2019) website includes a link to the *Fundations Overview and Studies of Program Effectiveness* document, which details three implementation studies conducted in school districts in New York, Florida, and Massachusetts (wilsonlanguage.com). All three studies compare performance on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for groups of students before and after the implementation of Fundations.

The first impact study compared DIBELS performance for two groups of kindergarten students in Indian River County, Florida. The study included 1,584 students who attended kindergarten the year prior to the implementation of Fundations and a second group composed of 1700 students who received Fundations instruction. Findings indicated that scores for students participating in Fundations increased by an average of 16 points on two DIBELS measures; First Sound Fluency and Phoneme Segmentation Fluency. In comparison, students who did not receive this instruction gained 12 points on First Sound Fluency and eight on Phoneme Segmentation Fluency. A similar end of year comparison for first grade students on the DIBELS Oral Reading Fluency Measure indicated that students who received Fundations instruction read an average of five more words correctly relative to the performance of students who were not exposed to Fundations.

A second study of implementation was conducted in Brooklyn, New York, and included students in Grades K-3 who received daily instruction in Fundations. No information is provided regarding the number of students included in the study. The limited information presented
indicated that there were fewer students in both kindergarten and first grade who were classified as high risk based on their DIBELS scores following implementation of Fundations.

The third study described in the Fundations Overview and Studies of Program Effectiveness document included 34 kindergarten students, half of whom were randomly assigned to receive Fundations instruction. Comparison of DIBELS scores demonstrated that a higher percentage of students receiving Fundations instruction earned scores at or above the benchmarks on the end of year assessments.

Together, these results suggest that students participating in Fundations demonstrated larger increases in performance on measures of phonemic awareness and oral reading fluency. However, there is limited information regarding some of the student samples and raw scores, which leads to a cautious interpretation of the reported findings. In addition, the report only includes descriptive data, such as mean scores by group, and the evaluators did not conduct any comparative analyses to determine if these differences were significant or if the comparison groups were similar prior to the introduction of Fundations instruction.

One of the few published studies regarding Fundations was conducted by Goss and Brown-Chidsey (2012) and focused on the Fundations Double Dose, or Tier 2 level of the program. Goss and Brown-Chidsey conducted a program evaluation comparing the effectiveness of Fundations Double Dose to the Reading Mastery program for six matched pairs of first grade students. Students were matched based on DIBELS scores and randomly assigned to either Fundations Double Dose or Reading Mastery instruction. All students continued to receive Tier 1 Fundations instruction during the core literacy block. Student performance was evaluated relative to DIBELS benchmarks for Nonsense Word Fluency, and additional comparisons were made between average gains per week for each dyad. Results indicated that all students demonstrated
growth but that there were higher average gains per week for students in the Reading Mastery condition.

The authors specifically noted that although both Reading Mastery and Fundations Double Dose are “research-based with an emphasis on “phonemic awareness, letter-sound correspondences, and word recognition, the delivery of instruction differs” (Goss & Brown-Chidsey, 2012, p. 72). They also reported that the Fundations program manual directed teachers to provide less repetition for students and fewer opportunities to practice new skills relative to Reading Mastery. Regarding Fundations instruction, they further commented that “teacher fluency and consistency of instruction for each activity are required to establish treatment fidelity” (p. 72). Together these evaluations led them to suggest that differences in the format and delivery of instruction may have resulted in the greater gains for the students in the Reading Mastery group.

**Reviews of Fundations**

As previously noted, Fundations has been evaluated by WWC and there were no studies of Fundations that met their review protocol standards (2007). Similarly, the Evidence for ESSA report on Fundations indicates that there were no studies that met inclusion requirements to be evaluated relative to ESSA criteria (2020). Other organizations have also reviewed Fundations for various purposes and published their findings. These reviews provide evaluations of Fundations relative to specific rubrics or in comparison to other reading programs.

The Florida Center for Reading Research conducted a review of Fundations in 2004, following the initial release of the Fundations program (Robinson & Wahl, 2004). Several strengths were noted, including that the Fundations curriculum was highly systematic and derived from a research base. Reviewers additionally reported that lessons were multisensory
and included frequent practice to support mastery. Although no weaknesses were noted, reviewers remarked that Fundations “recognizes its limitations in the area of comprehension and recommends that it be combined with a more formal literature program that explicitly teaches other comprehension strategies” (Robinson & Wahl, 2004, p. 4).

In 2017, Fundations was evaluated by the Iowa Reading Research Center as part of a review of kindergarten to second grade phonics materials (Folsom et al., 2017). The review was based on rubrics from the Guide for Reviewing a Reading Program (Kosanovich et al., 2008) and focused on five areas of content and instruction for three different reading programs. The report provided percentages of rubric criteria present for each program at each grade level. Fundations met 78% of the overall rubric criteria, however, ratings ranged from 94% for Phonics to 0% in the area of Motivation and engagement.

Fundations was rated as meeting 77% of rubric criteria in the area of Instructional design (ID) and reviewers noted that the manuals included research based instructional strategies. A stated concern was that “there were no studies cited that specifically were conducted on the program as implemented in general education classes” (Folsom et al., 2017, p. 15), an observation that is consistent with the evaluations conducted by WWC and Evidence for ESSA. Areas rated as strengths included the articulation of a clear scope and sequence, instructional repetition and consistency, modeling, and the use of explicit language and directions. However, the reviewers determined that the materials did not include specific language for delivering feedback or explicit directions for providing differentiation and small group instruction.

Fundations was rated as meeting only 68% of criteria for Phonological/phonemic awareness, mostly due to the sequencing of the activities. Reviewer feedback indicated that instruction started with a focus on phoneme isolation and identifying first sounds, which are
considered to be more difficult skills than working with words and syllables. Additionally, sounds were introduced by the order in which they appeared in the word rather than by order of difficulty. Another concern related to the instructional design of Fundations, which integrates many of the phonological/phonemic awareness instructional activities with phonics. Sounds and symbols are paired almost immediately in the instructional sequencing, potentially limiting opportunities to focus on phonemic awareness skills without overlapping with phonics instruction. Finally, there was limited guidance for teachers regarding interventions for students experiencing difficulty in this area.

The overall Phonics rating was 94% and the reviewers commented that “one of Fundations’ greatest strengths was the systematic, explicit phonics instruction that paired decoding with encoding or spelling” (Folsom et al., 2017, p. 19). The review indicated that phonics activities progressed appropriately from easier to difficult tasks. High frequency words were emphasized and there were connections between leveled texts and word practice. Similar to the other areas of instruction, a concern was noted that teachers were not provided with specific guidance for supporting students who did not demonstrate mastery on the unit tests.

Fundations was rated as meeting 0% of the criteria for Motivation and engagement. These rubric items emphasize choice and relevancy and reviewers noted that Fundations does not specifically provide opportunities for students to select from activities, read trade books, or interact with peers. Fundations was rated much higher for Assessment, with reviewers reporting that the program met 89% of rubric criteria in this area. Fundations unit tests provide teachers with tools to closely monitor student skill development and diagnostic assessments are available to assist with instructional planning.
EdReports (2019), an independent organization of trained educators that publishes reviews of instructional materials, conducted an evaluation of Fundations. This organization evaluates programs relative to rubrics that are based on the Common Core State Standards and related research in the subject area. Overall, Fundations was rated as partially meeting criteria for alignment to standards and research-based practices. Reviewers noted that materials provided for adequate instruction related to phonemic awareness, high frequency words, and encoding and decoding words. Lower ratings also reflected a limited focus on common vowel teams and inadequate opportunities to decode phonetically regular words in a sentence. Comments further highlighted the lack of opportunities for sufficient and explicit practice in multiple areas, an evaluation consistent with the conclusions of Goss and Brown-Chidsey (2012). Another limitation related to the amount of lesson time dedicated to reading emergent-reader texts for purpose and understanding, which was also noted as a weakness in the review conducted by the Iowa Reading Research Center (Folsom et al., 2017).

**Summary**

Reading is one of the most important academic skills and research has clearly indicated that reading instruction must include a focus on phonemic awareness, phonics, vocabulary, fluency, and comprehension. However, effective reading programs should also incorporate explicit and systematic instruction and be implemented with fidelity. Given the importance of reading, and the multiple factors impacting effective instruction, educators must continually evaluate the impact of instruction on student learning. RTI is one approach that provides critical guidance to schools in this process. Reading programs such as Fundations, which are based on the essential components of reading but do not have a solid and supportive research base, should be a priority for these evaluations.
CHAPTER 3

METHODS

The purpose of this study was to determine whether Fundations is being implemented with fidelity and if there has been a change in student reading performance since the introduction of this reading program. The study also explored teachers’ perceptions regarding their own competency and need for support to deliver Fundations instruction, along with their views regarding program strengths and challenges. The mixed methods design incorporated multiple measures and represented the input of various stakeholders.

Fundations training materials emphasize the critical importance of delivering the scripted instruction as specified in the Learning Activity Self-Study Checklists, published by Wilson to accompany the program (Wilson, 2012). These checklists are recommended for use by both teachers and observers and the staff at Allegra began to consistently use these resources during the 2019-2020 academic year. Wilson does not specify an acceptable level of implementation fidelity, so fidelity observation data was evaluated relative to 80%, which is within the recommended range when a fidelity level has not been established by the program developer (IRIS Center, 2014).

During the pilot year implementation of Fundations, grade level meeting notes indicate that teachers reported concerns related to lesson preparation, pacing, and delivering instruction in accordance with program specifications. In consideration of how these issues might impact fidelity and sustainability, the school curriculum council developed a brief survey regarding teachers’ perceptions of program implementation. Responses to this survey were analyzed to
provide information on perceived program strengths and challenges, along with self-reported assessments of competency and areas in need of support.

A quantitative approach was used to evaluate the impact of the Fundations on measures of student reading by comparing performance before and after the introduction of the program on running records assessments. Running records were selected as an outcome measure since they are available for all cohorts and also widely acknowledged as an appropriate and contextual benchmark measure of reading performance (Fawson et al, 2006).

Questions to be addressed by this evaluation included:

1. To what extent are selected key components of the program implemented with fidelity based on Fundations’ Learning Activity Self-Study Checklists as reported by teachers and observers?

2. What was the impact on first grade student reading performance as measured by running records assessments following implementation of Fundations during the 2017-2018 school year?

3. What are participating teachers’ perceptions regarding Fundations in terms of the following aspects of program implementation:
   a. How equipped and knowledgeable do teachers feel in delivering Fundations program instruction?
   b. What are perceived program strengths or highlights?
   c. What are perceived program weaknesses or challenges?
   d. What are areas in which teachers would like more support in delivering the Fundations program?
Participants

Participants for the fidelity checklists aspect of the study (Research Question 1) included six head classroom teachers and two learning specialists, for a total of 8 teacher participants. All teachers have a bachelor’s degree. The learning specialists both earned master’s degrees in special education. These educators were all invited to participate in the study; thus, the full contingent of classroom teachers and learning specialists were included, precluding the need to sample. The school leadership requires classroom teachers to complete the implementation survey (Research Question 3) each fall, so participants for that component of the study only included the six head teachers.

Participants also included the entire population of students in first grade for each cohort year. There are at least two classes per grade, each with an average of 15 students, and grade level populations ranged between 22-45 students over the six academic school years included in the study. Students did not directly participate in the program evaluation since extant data from running records assessments was used for the analysis.

Data Sources

A variety of data sources were accessed or developed to address the program evaluation questions.

Fundations Learning Activity Self-Study Checklists

Each level of the Fundations program has a corresponding Learning Activity Self-Study Checklist. The first section of the checklist focuses on General Tier 1 Implementation and the twenty item responses are marked as either yes or no. Sample items include “Learning Activities are presented in prescribed sequence for Unit/Week/Day” and “Lesson is scheduled for the prescribed amount of time (25-35 minutes)”. The second section of the Learning Activity Self-
Study Checklist includes all possible learning activities for that level of the program and is organized by subsections for each potential area of instruction. The corresponding items in each subsection are based directly on the required lesson components specified in the Teacher’s Manual (Wilson Language Training, 2012). Sample checklist items include: “Teacher and students tap the sounds of the word” and “Teacher selects a student to spell the word orally”. Each item is checked as either evident or not evident/not applicable. At Allegra, teachers complete the first section of the checklist once each year in the early fall and a learning specialist also completes it during a separate observation, which is typically scheduled before January. The school only requires teachers and learning specialists to complete the first section of the checklist, which focuses on General Tier 1 Implementation. The rationale for this policy is in recognition of the inherent evaluation of each specific area of instruction within the first, or General Tier 1 Implementation section of the checklist, as evidenced by questions such as “Learning Activities are presented in prescribed sequence for Unit/Week/Day”. Therefore, the questions in the first section summarize the focus of the questions in the second section of the checklist and this redundancy was not considered to be critical in assessing fidelity. See Appendices B, C, and D for Fundations Implementation Checklist for levels K-2.

It is important to note that the learning specialists who serve as observers and complete the Learning Activity Self-Study Checklist have a congenial relationship with the teachers and are colleagues rather than supervisors. The checklists are not used for teacher evaluation purposes and are simply completed to fulfill a stated recommendation by the publishers. Due to a possible leave situation, all checklists included in this study were completed together by two learning specialists. Each joint observation yielded one checklist per teacher.
**Fundations Teacher Survey**

The Allegra curriculum council developed a survey for classroom teachers for the purpose of gathering feedback on Fundations that would subsequently guide internal support and professional development activities. This survey also reflects continued attention to some of the concerns noted during the pilot year implementation of Fundations, since initial teacher feedback indicated challenges related to lesson preparation, pacing, and delivering instruction in accordance with program specifications. Classroom teachers respond to this open-ended response style Google survey in the fall. See Appendix E for a copy of the survey. The six items on the survey are listed below.

1. What grade level do you teach?
2. How long have you been teaching Fundations?
3. How equipped and knowledgeable do you feel in delivering the instruction?
4. Please share some program highlights
5. Please share some program challenges
6. Is there an area in which you would like more support?

**Running Records Assessments**

Reading performance data collected for this investigation were running records assessments for first grade students in six cohorts, from the 2014-2015 academic year to 2019-2020, permitting a comparison of data for three years before and three years after the program was introduced. Allegra operates on a trimester grading system and most students complete running records assessments at least 3 times per year between September and June. Data for this study will be based on running records scores from March of each year. This timeframe was selected since March assessments are consistently completed for all students for report cards and
instructional planning. In addition, data from this time period reflects student exposure to the majority of the Fundations curriculum and is collected just prior to a two week spring break period.

To obtain a running records score, students read leveled passages aloud and teachers measure accuracy based on the number of words read correctly after subtracting for miscues. During the assessment, teachers note word substitutions, self-corrections, repetitions, and omissions. Students are also asked to retell the story and answer four comprehension questions. Reading level is determined by attainment of 96% reading accuracy and answering at least three out of four comprehension questions correctly. Based on standard administration guidelines, all students participating in ongoing reading records assessments read at least two passages at each testing window. If a student demonstrates proficiency on the first passage, they are then tested at increasingly higher levels until their accuracy falls below 96% or they do not answer the minimum number of comprehension questions correctly. If a student does not read the first passage with 96% accuracy, then the rater administers probes from lower levels until that level is obtained. Passages correspond to designated levels from A through Z, therefore the measurement level for this data is ordinal. At Allegra, running records assessments are conducted by classroom teachers or learning specialists who are all certified teachers and who have completed training in administering and scoring the probes. All running records probes utilized at Allegra were developed by TCRWP (n.d.) and approved by New York State as assessments for Student Learning Objectives. Running records assessments provide educators with contextual information regarding students’ reading development and serve as benchmark indicators of progress.
Data Collection

Participants were not specifically recruited for the program evaluation since all K-2 teachers and learning specialists are included in Fundations instruction and complete fidelity checklists and surveys as part of their teaching responsibilities. Additionally, the researcher used extant student data for the quantitative aspect of the study (as reflected in Question 2). As an administrator, the researcher has direct access to the databases containing fidelity checklist information and running records assessments. Typically, these databases have various levels of restricted access to protect teacher and student privacy. The researcher also had direct access to the teacher survey results since they are used by the curriculum council to target professional development efforts and identify areas in need of support for the implementation of Fundations.

The results of the fidelity checklists were separated from identifying information regarding specific teachers, recoded, and downloaded into a separate database that was created for this program evaluation. Teachers are responsible for completing running records assessments and entering scores on a spreadsheet. The researcher downloaded March running records scores into a separate database and added codes for year of implementation and grade level.

Data Analysis

Both qualitative and quantitative methods were used to analyze the data collected. Quantitative methods are evident in the use of descriptive statistics to compute percentages regarding fidelity levels and students meeting benchmarks on running records assessments. Emergent, a priori, and focused coding of survey results provided qualitative information about the program from the perspective of the teachers responsible for implementing Fundations. More
specific data analysis is described for each of the program evaluation questions and also summarized in Table 2.

**Evaluation Question 1: To what extent are selected key components of the program implemented with fidelity based on Fundations' Learning Activity Self-Study Checklists as reported by teachers and observers?**

The results of the fidelity checklists were separated from identifying information regarding specific teachers and recoded by grade level as Teacher A, Teacher B, Teacher A Observation, and Teacher B Observation. An administrative assistant entered the summary percentages into a database created for this program evaluation, resulting in 12 entries across three grade levels for each of the two fidelity checks over the year, six self-study observations and six observations completed by a Learning Specialist. Self and observer checklists were completed by the end of January. Each level of the fidelity checklists has a total of twenty questions (see appendices B, C and D) and Level 1 and Level 2 checklists are identical. Level K replaces only one of the Level 1 and 2 checklist questions, substituting “Students demonstrate application of taught skills in Composition Books” with “Students demonstrate success with new material and challenges”. The first step in the analysis was to calculate percentages for the fidelity checklists by dividing the number of activities observed by the total number of activities relevant to that level of the checklist. These percentages were then compared and evaluated relative to recommended levels of fidelity, which is set at 80% for this study (IRIS Center, 2014).

**Evaluation Question 2: What was the impact on first grade student reading performance as measured by running records assessments following implementation of Fundations during the 2017-2018 school year?**
The main impetus for the adoption of Fundations as part of the core reading curriculum at Allegra was to ensure that 80% of students meet grade level benchmarks in reading, as measured by specific levels on running records assessments set by TCRWP (n.d.). Notably, since Wilson advises schools that Fundations must be combined with a literature-based reading program, the school continued implementing the TCRWP reading program when Fundations was introduced. Therefore, the core reading instruction remained the same for student cohorts studied before and after the implementation of Fundations.

Student performance on running records assessments correspond to levels, coded alphabetically as A-Z, and level A designates the foundational level. The first grade March benchmark includes a range of levels from H to J. Performance at the minimum level of H indicates that students are meeting expectations and developing reading skills at a level commensurate with first grade standards. These rank ordered levels yield ordinal data regarding reading performance. To calculate the percentage of students meeting benchmarks, the number of students meeting or exceeding the minimum March running records benchmark score of level H was divided by the total number of students in the grade. This was completed for each cohort.

**Evaluation Question 3: What are participating teachers’ perceptions regarding Fundations in terms of the following aspects of program implementation:**

a. How equipped and knowledgeable do teachers feel in delivering Fundations program instruction?

b. What are perceived program strengths or highlights?

c. What are perceived program weaknesses or challenges?

d. What are areas in which teachers would like more support in delivering the Fundations program?
Analysis of the survey responses followed the six-step coding process, outlined by Creswell and Creswell (2018), beginning with organizing and preparing the data and subsequently moving through additional steps, which included coding the data and interpreting the findings. Responses to the survey questions were manually hand coded by the researcher and analyzed in two coding cycles (Saldana, 2016). The first coding cycle incorporated both emergent and a priori methods. Initial coding was used to uncover emergent summary attributes. A priori coding focused on the aspects of fidelity that were central to this program evaluation and reflect FOI research. Examples of a priori codes included; pacing, lesson frequency, lesson length, adherence to lesson plans, materials, time, and lesson preparation. Focused coding was applied during the second coding cycle to further develop categorical organization from the findings of the first cycle coding (Saldana, 2016).

Table 2

Evaluation Questions, Data Sources, and Data Analysis

<table>
<thead>
<tr>
<th>Evaluation Question</th>
<th>Data Sources</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent are selected key components of the program implemented with fidelity based on Fundations’ Learning Activity Self-Study Checklists as reported by teachers and observers?</td>
<td>Fidelity checklists completed either by teachers or observers for grades K-2</td>
<td>Calculate percentages by dividing number of applicable instructional activities reported or observed by total number of activities relevant to that lesson</td>
</tr>
<tr>
<td>2. What was the impact on first grade student reading performance as measured by running records assessments following implementation of Fundations during the 2017-2018 school year?</td>
<td>Scores on March running records assessments for all first grade cohorts since the 2014-2015 school year, coded by cohort</td>
<td>Calculate percentages of students meeting grade level benchmarks on March running records assessments by dividing number of students meeting benchmark by total number of students in the grade</td>
</tr>
<tr>
<td>3. What are participating teachers’ perceptions regarding Fundations in terms of the four specified aspects of program implementation?</td>
<td>Responses to Teacher survey</td>
<td>Emergent, a priori, and focused coding of teacher responses to open-ended survey questions</td>
</tr>
</tbody>
</table>
**Timeline**

The proposed timeline for this program evaluation includes all necessary steps following the successful dissertation proposal defense in November 2020. Extant data sources were available to the evaluator immediately following the proposal defense; therefore, data analysis occurred during December 2020. Additional information regarding the proposed timeline is provided in Table 3.

**Table 3**

*Evaluation and Dissertation Defense Timeline*

<table>
<thead>
<tr>
<th>Phase</th>
<th>Process</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>II – Preliminary Steps to Conducting Study</td>
<td>Request approval from W&amp;M IRB</td>
<td>November 2020</td>
</tr>
<tr>
<td></td>
<td>Secure permission from school district/other educational organization to conduct research study</td>
<td></td>
</tr>
<tr>
<td>III – Conduct Study</td>
<td>Execute study as approved by dissertation committee</td>
<td>December 2020</td>
</tr>
<tr>
<td></td>
<td>Collect, tabulate, and analyze data or findings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write Chapters 4 and 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communicate with dissertation chair throughout</td>
<td></td>
</tr>
<tr>
<td>IV – Dissertation Defense</td>
<td>Schedule defense date when approved by dissertation chair</td>
<td>February–March 2021</td>
</tr>
<tr>
<td></td>
<td>Submit final dissertation to committee when approved by chair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare for dissertation defense (e.g., PowerPoint presentation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Defend dissertation (make modifications as required)</td>
<td></td>
</tr>
</tbody>
</table>
Delimitations, Limitations, Assumptions

Delimitations

A major delimitation that influenced this evaluation relates to the decision to evaluate reading measures from first grade rather than including Kindergarten and second grade. A related delimitation was the choice to focus on process and short-term outcomes. This evaluation considered process in the form of fidelity of implementation and performance on running records as a short-term outcome rather than considering long-term outcomes such as scores on standardized measures of reading. In addition, running records assessments were selected as the short-term outcome measure, to the exclusion of other available measures of reading performance. Furthermore, this study was conducted within a single independent school with a limited sample size.

Limitations

A major limitation of this evaluation is that fidelity data was separated from identifiable information regarding the teacher. As a result, the researcher was not able to make direct comparisons between levels of implementation fidelity in a particular classroom and student progress. The Allegra Curriculum Council felt that this was appropriate during the introduction of the program since they did not want teachers to be concerned that the fidelity checks would impact their performance evaluation. In addition, the use of self-assessments of fidelity data does introduce considerations related to accuracy and generalizability.

Another limitation relates to the sample of student data, which is small and includes international students. This sample size does not permit separate comparisons for bilingual students and limits generalizations to larger groups of students in other settings.
**Assumptions**

Fundamental assumptions of this study include the belief that teacher training in Fundations is sufficient to support implementation of the program and that the student testing data selected are valid and appropriate measures. Additional assumptions include that teachers will respond accurately to the survey and that the population at Allegra does not have a higher than typical rate of students with a Specific Learning Disability in Reading.

**Ethical Considerations**

This program evaluation was designed to adhere to the Program Evaluation Standards of propriety, utility, feasibility, and accuracy (Yarbrough et al., 2011). In the area of utility, this evaluation directly addressed stakeholder requests for information regarding the fidelity of program implementation and the program impact on student literacy. The results of this evaluation will be used to adjust Fundations implementation, if necessary, and ultimately determine whether to continue the program.

The evaluation plan also reflects consideration of any potential negative consequences for teachers associated with gathering data regarding fidelity of implementation by including instructions to remove identifying teacher information from fidelity checklists before they were released to the researcher. Evaluation procedures, resources, and management were designed to be effective and efficient by leveraging established processes and utilizing existing data sources. I had ready access to the data sources and the methodology was cost-effective and did not interfere with program delivery.

Propriety standards are intended to ensure that evaluations are proper, fair, legal, right, and just. To address these areas, the role of the evaluator was communicated to all stakeholders. I did not have direct contact with any of the stakeholders and utilized extant data, minimizing the
risks of any bias. I provided a report with a complete description of evaluation results, limitations, and conclusions to the head of school, with planned dissemination to the faculty.

The evaluation plan further focused on clarity and fairness by addressing the process and outcomes questions identified by the curriculum council while simultaneously protecting the rights and dignity of the participants. The design placed considerable emphasis on protecting teachers by separating teacher identity from fidelity data. This was to ensure that the fidelity implementation checks would not be used for teacher performance evaluations. The use of aggregate student data further protects the identity of individual students.

To adhere to accuracy standards this program evaluation incorporated valid and reliable assessments for literacy and program implementation fidelity. The evaluation design and analyses were based on approaches that are appropriate for the purposes of the evaluation. In addition, to minimize self-rater bias, data from both self-report and objective observers was used to evaluate fidelity. Since only extant data sources were used, I was not required to complete an application for approval to conduct the study from the College of William and Mary’s Institutional Review Board. The head of school at Allegra provided written approval for me to use the various sources of extant data for the study.
CHAPTER 4
FINDINGS

The purpose of this mixed methods program evaluation was to determine the extent to which Fundations is being implemented with fidelity and if there has been a change in student reading performance since the introduction of the Fundations program. This study also explored teachers’ perceptions regarding their own competency and need for support in delivering Fundations instruction, and their perceptions of program strengths and challenges. This chapter presents the findings of the program evaluation and the results are organized by the following evaluation questions:

1. To what extent are selected key components of the program implemented with fidelity based on Fundations’ Learning Activity Self-Study Checklists as reported by teachers and observers?

2. What was the impact on first grade student reading performance as measured by running records assessments following implementation of Fundations during the 2017-2018 school year?

3. What are participating teachers’ perceptions regarding Fundations in terms of the following aspects of program implementation:
   a. How equipped and knowledgeable do teachers feel in delivering Fundations program instruction?
   b. What are perceived program strengths or highlights?
   c. What are perceived program weaknesses or challenges?
d. What are areas in which teachers would like more support in delivering the Fundations program?

Summary Findings for Study

Evaluation Question 1. To what extent are selected key components of the program implemented with fidelity based on Fundations’ Learning Activity Self-Study Checklists as reported by teachers and observers?

Wilson publishes Learning Activity Self-Study Checklists to accompany each level of the program so that teachers and observers may monitor fidelity of instruction. (Wilson Language Training Corporation, 2012). All six teachers in grades K-2 completed the Fundations Learning Activity Self-Study Checklist during the month of October 2019. A learning specialist also observed each class and completed the checklist during the last two weeks of January 2020. Each of the twenty item checklist responses were marked as either yes or no. The results of the fidelity checklists were separated from identifying information regarding specific teachers and recoded by grade level as Teacher A, Teacher B, Teacher A Observation, and Teacher B Observation, for a total of 12 checklists. Analysis consisted of dividing the number of activities observed by the total number of activities, resulting in a summary percentage of fidelity. These summary percentages were evaluated relative to recommended levels of fidelity, which was set at 80% for this study (IRIS Center, 2014). See Table 4 for a summary of self and observer fidelity rating percentages on the Learning Activity Self-Study Checklists.
### Table 4

*Fidelity Percentages as Measured by Learning Activity Self-Study Checklists*

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Grade</th>
<th>Self</th>
<th>Observer</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>K</td>
<td>75</td>
<td>60</td>
</tr>
<tr>
<td>B</td>
<td>K</td>
<td>85</td>
<td>70</td>
</tr>
<tr>
<td>A</td>
<td>1</td>
<td>85</td>
<td>75</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>A</td>
<td>2</td>
<td>85</td>
<td>70</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>80</td>
<td>65</td>
</tr>
</tbody>
</table>

Analysis of the checklist data indicates that observer ratings for fidelity were consistently lower than self-study ratings. Five of the six self-study summary ratings completed by teachers met the fidelity criterion level of 80%. However, none of the summary percentages from the observer ratings met that threshold. In addition, observer ratings of fidelity consistently ranged between 5-15 percentage points lower than self-study ratings. Figure 2 displays the pattern of differences between self and observer fidelity ratings.
First grade teachers demonstrated the highest levels of fidelity, as measured by the percentage of checklist items marked affirmatively on both self and observer ratings. Notably, this grade was the first to implement Fundations, and the ratings were completed when these two teachers were in their third year of implementing Fundations instruction at Allegra. In addition, one of the first grade teachers reported having eight years of experience teaching the program.

Analysis of checklist items indicates that no teachers or observers responded yes to one of the questions and two questions displayed disagreement between teacher and observer responses. None of the respondents answered affirmatively to “Pacing through Unit is on track to complete instruction by year end”. In addition, none of the self-ratings resulted in a yes response to the item “Lesson is scheduled for the prescribed amount of time (25-35 minutes)”. However, the observer for both first grade observations responded yes to this query, yielding the only two
affirmative ratings across the six classrooms for this item. Furthermore, no observer ratings resulted in a yes response to the query: “Students smoothly transition from one activity to the next with little or no loss of instructional time”. All but one observer rating also indicated that unit test trackers were not kept updated or used to inform pacing.

Across grades, higher levels of affirmative endorsements were present for both observer and self-ratings on items related to the fidelity components of student involvement and responsiveness, adherence, and quality of program delivery. Behaviors associated with student responsiveness included “Students tap correctly”, “Students manipulate letter tiles”, and “Students’ letter formation demonstrates mastery and neatness”. Additionally, all self and observer ratings indicated that “Students actively participate by responding and doing”. Items related to program adherence that received high levels of endorsement included “Procedures for learning activities are evident” and “Lesson planning is evident; a written lesson plan is used”. Across the grades, five out of six self-ratings and four out of six observer ratings also indicated that “Learning activities are presented in prescribed sequence for Unit/Week/Day”. High levels of endorsement were also found for items related to the quality of program delivery, including; “Teacher circulates to monitor learning and offer feedback” and “Teacher uses questioning techniques to check understanding, reinforce concepts, and correct errors”. See Tables 5-7 for aggregate summaries of self and observer checklist responses for each grade level.
### Table 5

*Kindergarten Self and Observer Checklist Ratings*

<table>
<thead>
<tr>
<th>Item</th>
<th>Aggregate % Teacher Self-Ratings</th>
<th>Aggregate % Observer Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson is <strong>scheduled</strong> for the prescribed amount of time (25-35 minutes)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Teacher and student materials are complete, and resources are visible and referenced by students</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Lesson planning</strong> is evident, a written lesson plan is used</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Pacing through Unit is on track to complete instruction by year end</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Learning Activities are presented in <strong>prescribed sequence</strong> for Unit/Week/Day</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td><strong>Procedures</strong> for Learning Activities are <strong>evident</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Unit tests are <strong>administered and scored</strong> for each unit</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Unit test trackers are kept <strong>up-to-date and inform pacing and instruction</strong></td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Students <strong>manage materials</strong>, following efficient routines</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>smoothly transition</strong> from one activity to the next with little or no loss of instructional time</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Students <strong>follow directions</strong> throughout lesson</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Students <strong>actively participate</strong> by responding and doing</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>tap</strong>, as directed</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>manipulate letter tiles</strong>, as directed</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate mastery</strong> of previously taught concepts for <strong>reading</strong></td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Students <strong>demonstrate mastery</strong> of previously taught concepts for <strong>spelling</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate success with</strong> new material and challenges</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Students’ <strong>letter formation demonstrates mastery</strong> and neatness</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Teacher circulates to monitor learning and to offer feedback</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Teacher uses <strong>questioning techniques</strong> to check understanding, reinforce concepts, and correct errors</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>

*Note.* The percentages indicate yes responses to each question and reflect combined ratings across the grade level.
Table 6

**First Grade Self and Observer Checklist Ratings**

<table>
<thead>
<tr>
<th>Item</th>
<th>Aggregate % Teacher Self-Ratings</th>
<th>Aggregate % Observer Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson is <strong>scheduled</strong> for the prescribed amount of time (25-35 minutes)</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Teacher and student materials are complete, and resources are <strong>visible and referenced</strong> by students</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Lesson planning</strong> is evident, a written lesson plan is used</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Pacing through Unit is on track to complete instruction by year end</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Learning Activities are presented in <strong>prescribed sequence</strong> for Unit/Week/Day</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Procedures</strong> for Learning Activities are <strong>evident</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Unit tests are <strong>administered and scored</strong> for each unit</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Unit test trackers are kept <strong>up-to-date and inform pacing and instruction</strong></td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Students <strong>manage materials</strong>, following efficient routines</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>smoothly transition</strong> from one activity to the next with little or no loss of instructional time</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Students <strong>follow directions</strong> throughout lesson</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>actively participate</strong> by responding and doing</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>tap</strong>, as directed</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>manipulate letter tiles</strong>, as directed</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate mastery</strong> of previously taught concepts for spelling</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate success with</strong> new material and challenges</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate application of taught skills in Composition Books</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students’ <strong>letter formation demonstrates mastery</strong> and neatness</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Teacher circulates to monitor learning and to offer feedback</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Teacher uses <strong>questioning techniques</strong> to check understanding, reinforce concepts, and correct errors</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**Note.** The percentages indicate yes responses to each question and reflect combined ratings across the grade level.
### Table 7

**Second Grade Self and Observer Checklist Ratings**

<table>
<thead>
<tr>
<th>Item</th>
<th>Aggregate % Teacher Self-Ratings</th>
<th>Aggregate % Observer Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson is <strong>scheduled</strong> for the prescribed amount of time (25-35 minutes)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Teacher and student materials are complete, and resources are <strong>visible and referenced</strong> by students</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Lesson planning</strong> is evident, a written lesson plan is used</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Pacing through Unit is on track to complete instruction by year end</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Learning Activities are presented in <strong>prescribed sequence</strong> for Unit/Week/Day</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td><strong>Procedures</strong> for Learning Activities are <strong>evident</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Unit tests are <strong>administered and scored</strong> for each unit</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Unit test trackers are kept <strong>up-to-date and inform pacing and instruction</strong></td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Students <strong>manage materials</strong>, following efficient routines</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>smoothly transition</strong> from one activity to the next with little or no loss of instructional time</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Students <strong>follow directions</strong> throughout lesson</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Students <strong>actively participate</strong> by responding and doing</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>tap</strong>, as directed</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>manipulate letter tiles</strong>, as directed</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate mastery</strong> of previously taught concepts for spelling</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate success with</strong> new material and challenges</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Students <strong>demonstrate application of taught skills in Composition Books</strong></td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Students’ <strong>letter formation demonstrates mastery</strong> and neatness</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Teacher circulates to monitor learning and to offer feedback</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Teacher uses <strong>questioning techniques</strong> to check understanding, reinforce concepts, and correct errors</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Note.* The percentages indicate yes responses to each question and reflect combined ratings across the grade level.
**Evaluation Question 2. What was the impact on first grade student reading performance as measured by running records assessments following implementation of Fundations during the 2017-2018 school year?**

First grade students complete running records assessments at least three times per school year as a measure of reading performance and scores are evaluated relative to benchmarks for each testing window (Reading and Writing Project, n.d.). Teachers and administrators analyze this data at both the individual student and class levels, with the class level results evaluated relative to whether 80% of students are meeting the benchmark. To investigate the impact of Fundations instruction on reading performance, the percentage of students meeting the March running records benchmark was calculated for each cohort. First grade student scores for each school year between 2014-2015 through 2019-2020 were downloaded from the school database. Next, the number of students meeting or exceeding the March benchmark score of level $H$ was divided by the total number of students in the grade for each cohort. Table 8 provides the percentage of students meeting the March benchmark for each cohort year.

**Table 8**

<table>
<thead>
<tr>
<th>School Year</th>
<th>N</th>
<th>% Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fundations Cohorts</td>
<td></td>
</tr>
<tr>
<td>19-20</td>
<td>28</td>
<td>64</td>
</tr>
<tr>
<td>18-19</td>
<td>27</td>
<td>85</td>
</tr>
<tr>
<td>17-18</td>
<td>36</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Pre-Fundations Cohorts</td>
<td></td>
</tr>
<tr>
<td>16-17</td>
<td>37</td>
<td>64</td>
</tr>
<tr>
<td>15-16</td>
<td>19</td>
<td>84</td>
</tr>
<tr>
<td>14-15</td>
<td>33</td>
<td>84</td>
</tr>
</tbody>
</table>
Results indicated that during the 3 years prior to the introduction of Fundations during the 2017-2018 school year, two out of three first-grade student cohorts performed at or above the benchmark level. Fundations was introduced as a pilot program during the 2017-2018 school year, and that cohort performed at the lowest level across the 6 years of analysis, with 55% of students meeting the March benchmark. During the second year of Fundations implementation, 2018-2019, that figure increased to 85% of students meeting the benchmark. Notably, this was the year that Allegra decided to fully adopt Fundations in Grades K-2 and the onboarding package included a professional development series delivered by a Wilson trainer, along with two onsite visits. The following year, 2019-2020, the percent of students meeting the benchmark dropped to 64%. Wilson did not provide external support or training during that year, although all six teachers remained in their roles and continued teaching the same level of Fundations. In summary, cohort running records scores for 2 out of the 3 years prior to Fundations implementation met the benchmark level of 80%, and one out of three cohorts receiving Fundations instruction reached this level, as shown in Figure 3.
Initially, the focus of this evaluation question was to determine whether there was an impact on the percent of students meeting reading benchmarks following the implementation of Fundations. This is the indicator used by the school to evaluate their curriculum and a process that aligns with the RTI approach. However, this type of analysis does not account for baseline differences in reading levels, nor consideration of differences in the growth of reading scores between benchmark periods. Therefore, a one-way analysis of covariance (ANCOVA) was conducted to compare March running records levels between the school year cohorts while controlling for students’ September reading scores. The first step in conducting the ANCOVA was to recode the data, since running records scores are represented as letters from A through Z. Each letter was assigned a numerical value, A=1, and so forth. Two students from the 2016-2017 cohort year did not have scores for September and were therefore excluded. The analysis was performed using IBM SPSS Statistics (Version 27).
Results indicated a significant effect of cohort year on March running records scores between the groups after controlling for September levels, $F(5, 171) = 6.27, p < .001$. Post hoc analysis indicated that March running records scores for the 2019-2020 cohort were significantly different than scores of the cohorts in years 2014-2015, 2016-2017, and 2017-2018. The 2018-2019 cohort scores were also significantly different than the scores from the 2014-2015, 2016-2017, and 2017-2018 cohorts. No significant differences were found for comparisons with scores from the 2015-2016 cohort year. See Table 9 for the ANCOVA results.

**Table 9**

*ANCOVA Results*

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>September Score</td>
<td>861.70</td>
<td>1</td>
<td>861.70</td>
<td>385.18*</td>
<td>.69</td>
</tr>
<tr>
<td>Cohort Year</td>
<td>70.11</td>
<td>5</td>
<td>14.02</td>
<td>6.27*</td>
<td>.16</td>
</tr>
<tr>
<td>Error</td>
<td>382.55</td>
<td>171</td>
<td>2.24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. $R^2 = .71$, Adj. $R^2 = .70$, adjustments based on September mean = 5.62.*  
* $p < .001$

Analysis of the estimated marginal means for the March running records scores indicated that the 2019-2020 adjusted mean score (10.05) was the highest across all years and the 2018-2019 adjusted mean score (9.88) was the second highest, but there was no significant difference between the 2018-2019 and 2019-2020 cohorts. See Table 10 for the descriptive statistics.
Table 10

Descriptive Statistics for March Running Records by Cohort Year

<table>
<thead>
<tr>
<th>Cohort Year</th>
<th>March Running Records Scores</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed $M$</td>
<td>Adjusted $M$</td>
<td>$SD$</td>
<td>$n$</td>
<td></td>
</tr>
<tr>
<td>2014-2015</td>
<td>9.94</td>
<td>8.47</td>
<td>2.50</td>
<td>33</td>
</tr>
<tr>
<td>2015-2016</td>
<td>8.95</td>
<td>9.22</td>
<td>2.22</td>
<td>19</td>
</tr>
<tr>
<td>2016-2017</td>
<td>8.91</td>
<td>8.61</td>
<td>2.41</td>
<td>35</td>
</tr>
<tr>
<td>2017-2018</td>
<td>8.28</td>
<td>8.52</td>
<td>2.97</td>
<td>36</td>
</tr>
<tr>
<td>2018-2019</td>
<td>9.52</td>
<td>9.88</td>
<td>2.48</td>
<td>27</td>
</tr>
<tr>
<td>2019-2020</td>
<td>8.79</td>
<td>10.05</td>
<td>3.28</td>
<td>28</td>
</tr>
</tbody>
</table>

Comparison of the adjusted mean scores from these 2 years after Fundations implementation to the adjusted mean scores for the 2014-2015, 2016-2017, and 2017-2018 cohorts indicates an increase equivalent to nearly one full reading level, as shown in Figure 4.

Figure 4

Adjusted Mean Running Records Scores by Cohort School Year

![Adjusted Mean Running Records Scores by Cohort School Year](image-url)
Evaluation Question 3: What are participating teachers’ perceptions regarding Fundations in terms of the following aspects of program implementation:

a. How equipped and knowledgeable do teachers feel in delivering Fundations program instruction?

b. What are perceived program strengths or highlights?

c. What are perceived program weaknesses or challenges?

d. What are areas in which teachers would like more support in delivering the Fundations program?

All six classroom teachers responded to a Google survey during the second week of October 2019. Analysis of the open-ended survey responses followed the six-step coding process, outlined by Creswell and Creswell (2018). The researcher manually hand coded the responses and conducted two coding cycles (Saldaña, 2016). The first coding cycle indicated that responses aligned with several a priori codes, including; pacing, lesson frequency, lesson length, adherence to lesson plans, materials, and time. Time was subdivided into teaching time and planning time. Additional themes that emerged during initial coding included curriculum design and teacher training. Focused coding was applied during the second coding cycle to further develop categorical organization from the findings of the first cycle coding (Saldaña, 2016). Responses initially coded under teaching time were reorganized under pacing, lesson frequency, and lesson length. Coded responses for planning time were not related to those codes and therefore remained separate. Exposure, identified in the literature as one of the five components of fidelity, emerged as the major categorical theme that occurred most frequently and was the overarching category for responses aligning with the a priori codes of pacing, lesson frequency, and lesson length. All four responses referencing adherence to lesson plans included a corresponding code.

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of pacing, lesson frequency or lesson length, indicating an interdependent relationship between adherence and exposure. Codes and themes are presented by survey question in Table 11.

**Table 11**

*Teacher Survey Responses Regarding Implementation of Fundations*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Codes</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please share some program highlights</td>
<td>Materials</td>
<td>All six teachers identified materials as a program strength, with four responses specifically focused on magnetic boards</td>
</tr>
<tr>
<td></td>
<td>Curriculum design</td>
<td>Instruction includes considerable repetition and review leading to mastery</td>
</tr>
<tr>
<td>Please share some program challenges</td>
<td>Exposure</td>
<td>All six teachers reported that not enough time was allocated for the daily lessons. Responses indicated that Fundations was scheduled for a maximum of 3 times per week instead of 5, and for less than 30 minutes each day. Teachers noted that instruction was not aligned with the pacing guide and they could not fit in all lesson components</td>
</tr>
<tr>
<td></td>
<td>Teaching time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pacing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesson length</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lesson frequency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adherence to plans</td>
<td></td>
</tr>
<tr>
<td>In what areas would you like more support?</td>
<td>Teaching time</td>
<td>All respondents requested more time in their schedule to teach the lessons</td>
</tr>
<tr>
<td></td>
<td>Planning time</td>
<td>Teachers requested more training in delivering lessons, assessment and differentiation. All six teachers listed professional development as an area of needed support with specific requests for opportunities to observe lessons and obtain feedback on lesson delivery</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td></td>
</tr>
</tbody>
</table>

Five teachers responding to the survey indicated that they had 2 years of experience teaching Fundations, and one teacher reported 8 years of experience with the curriculum. When asked how equipped and knowledgeable they felt about delivering Fundations, teachers’ responses indicated feelings ranging from “very” to “fairly good but obviously not perfect.” No teachers reported feeling that they lacked knowledge or were ill-equipped in response to this
question. However, responses to the question regarding areas in which they would like more support indicated that all six teachers believed they would benefit from professional development and ongoing implementation guidance. One teacher suggested scheduling a Wilson Fundations trainer for an onsite visit to “model all of the components and activities and how we can fit those into the recommended lesson time.” Two teachers requested that trained coaches “provide feedback” to them and two teachers requested time to conduct peer observations of fellow teachers.

Exposure emerged as the major category for the survey question pertaining to program challenges and was also related to requests for additional teaching time when teachers were asked what supports they needed to implement Fundations. All six teacher respondents to the survey noted that exposure was a critical variable limiting their ability to deliver the program in accordance with the publisher recommendations. One teacher remarked, “Three lessons per week is the goal but not attainable because of our schedule.” Another teacher wrote, “We’re expected to complete a lesson in 30 minutes. It’s impossible to incorporate all components in that timeframe.” One teacher stated that it is still a big challenge to provide Fundations instruction “at least three times a week for 15-20 mins” and that “schedule conflicts are constant.”

Responses to the current survey were not consistent with a survey conducted during the pilot year of Fundations in that teachers did not report concerns related to unrealistic lesson preparation expectations or difficulty handling materials during the lessons. Conversely, materials were noted to be a program strength, particularly the magnetic boards. Specific responses indicated the observation that “Magnet boards are a great interactive tool” and a second teacher remarked that the “children love the magnetic board work.”
Combined analysis of the survey responses and the results from the Fundations Learning Activity Self-Study checklists provided evidence of similar themes across measures that relate to fidelity of implementation, with considerable emphasis on program exposure issues. No observer or self-rating checklist responses indicated that the pacing of instruction was on schedule. In addition, only the two first grade observer ratings affirmed that lessons were being conducted for the recommended length of time while all other observer and self-rating responses indicated that this schedule was not followed. Survey responses were similar and confirmed that Fundations is not scheduled in accordance with the Wilson guidelines, which specifies 20–25-minute lessons five times per week. Survey comments further suggested that conflicts frequently interfered with even the limited schedule of instruction that was designated in the school master schedule, which responses identified as ranging from 15-30 minutes a day for 3 days per week.

Checklist ratings suggested that teachers felt and were observed to be adept with guiding students in using materials such as magnetic boards. Responses to the survey similarly indicated that teachers were consistently incorporating the materials during lessons and teachers noted the benefit of using these manipulatives to engage students. Responses to the survey also clearly conveyed that teachers were looking for more support and guidance in teaching the lessons within the recommended time frame. This was consistent with the finding that no observer ratings on the checklist resulted in an affirmative response to the question asking whether students were transitioning from one activity to another without losing instructional time.

Summary

Self-ratings on the Fundations Learning Activity Self-Study Checklists resulted in ratings at or above the target fidelity level of 80% for five out of six teachers. Observer ratings were comparatively lower, and none meet the threshold of 80% for fidelity of implementation. Both
self and observer fidelity ratings identified exposure aspects, including pacing and scheduling, as challenges related to program implementation, while items pertaining to adherence, program delivery and student participation were more consistently rated as present.

Survey responses provided confirmatory evidence for the program exposure challenges initially noted on the Fundations Learning Activity Self-Study Checklists. Teachers reported that the schools’ current master schedule does not allocate the minimum lesson time or frequency that is recommended by the program publisher. All participating teachers also identified a need for additional and ongoing professional development support.

Analysis of the percent of students meeting or exceeding the March benchmark for running records scores indicated that cohorts in two out of the three years prior to Fundations implementation met the benchmark level of 80%, and one out of three cohorts receiving Fundations instruction reached this level. Since this type of analysis does not account for baseline differences in reading levels, nor consideration of differences in the growth of reading scores between benchmark periods, an ANCOVA was conducted to compare March running records levels between the school year cohorts while controlling for students’ September reading scores. The analysis was significant and post-hoc comparisons indicated that the 2019-2020 adjusted mean score (10.05) was the highest across all years and the 2018-2019 adjusted mean score (9.88) was the second highest. Analysis of adjusted mean scores across cohorts indicates that the running records scores from the post-Fundations implementation years of 2018-2019 and 2019-2020 correspond to nearly one full reading level higher compared to scores for two out of three of the cohorts who were not exposed to Fundations.
CHAPTER 5

RECOMMENDATIONS

Literacy is recognized as a fundamental skill that is critical to both academic achievement and fully participating in society as an adult. Early reading skills are strongly associated with later academic performance and research has consistently demonstrated the importance of learning to read by the end of third grade (Annie E. Casey Foundation, 2010; Sparks et al., 2014; Stanley et al., 2017). Studies have also identified five essential components of effective reading instruction, which include phonemic awareness, phonics, vocabulary, fluency, and comprehension (NRP, 2000). Despite this intense focus on the development of reading skills, the United States continues to face a literacy crisis. Results of the 2019 National Assessment of Educational Progress 12th grade reading assessment indicated that only 37% of Grade 12 students were performing at or above the proficient level in reading and there was also an increase in the number of students performing below the basic level compared to scores in 2015. Therefore, it is critical to more closely examine factors impacting reading instruction, including whether specific reading programs are effective and implemented with fidelity. Reading programs such as Fundations, which is based on the five essential components of reading but not supported by a solid research base, should be a priority for these evaluations.

The purpose of this mixed methods program evaluation was to determine the extent to which Fundations is being implemented with fidelity at a private urban elementary school and if there has been a change in student reading performance since the introduction of the Fundations curriculum. This study also explored teachers’ perceptions regarding their own competency and
need for support in delivering Fundations instruction, and their perceptions of program strengths and challenges. Teachers and observers completed Fundations Learning Activity Self-Study Checklists as a measure of fidelity of implementation. Running records scores were analyzed to determine if there were differences in scores or the number of students meeting benchmark levels of reading performance following the introduction of Fundations. Teachers also completed an open-ended survey regarding Fundations implementation, and their responses were coded using emergent, a priori, and focused coding. Survey responses were considered together with the results of both self and observer ratings on the Fundations Learning Activity Self-Study Checklists to identify common themes across these measures. This chapter includes a discussion of the program evaluation findings, identifies recommendations for policy, practice, and leadership, and highlights areas for future research.

Discussion of Findings

**Evaluation Question 1. To what extent are selected key components of the program implemented with fidelity based on Fundations’ Learning Activity Self-Study Checklists as reported by teachers and observers?**

Analysis of the checklist data indicated several key findings related to fidelity and also demonstrated a trend of higher self-ratings relative to observer ratings. All but one of the teacher self-ratings yielded fidelity scores of 80% or higher, however, no observer ratings across the grade levels reached this target level. Exposure emerged as the most significant factor impacting fidelity. Specifically, it was evident that lessons were not scheduled for the prescribed daily length or weekly frequency. As a result, pacing was not on schedule to complete the program by the end of the year. This core issue is due to scheduling decisions made during the first year of Fundations implementation. At that time, the master schedule provided twice weekly periods of
15-25 minutes that were designated for informal word work and vocabulary development. Instead of changing the schedule to accommodate the full allotment of time recommended for Fundations, the program was simply allocated the time slot previously dedicated to the word work activities. Although teachers have voiced their concerns about the schedule during grade level meetings this issue has only been moderately addressed by adding a third 20-minute time slot designated for Fundations. As a result, the maximum exposure to the program averages around 75 minutes per week instead of the recommended range of 125-175 minutes.

Ratings on the two specific program exposure items significantly impacted overall percentages for fidelity on both self and observer checklists, lowering all checklist summary scores by 10%. In contrast, closer examination of responses revealed a pattern of mostly affirmative ratings for items associated with the fidelity constructs of adherence and participant responsiveness (Dane & Schneider, 1998; O’Donnell, 2008). These results highlight the distinction between external and internal fidelity factors (Azano et al., 2011). Limits to exposure for this program are due to the master schedule, which does not allocate the daily and weekly instructional time recommended by the publisher to implement the program. Scheduling is not within the direct control of individual teachers and is therefore considered an external factor. In contrast, classroom level fidelity behaviors related to adherence and student responsiveness were consistently rated as present. These components are considered to be internal fidelity factors that teachers can control and address. Overall, despite significant time constraints, findings indicate that teachers are generally delivering instruction as designed and student involvement in the lessons is consistent with program expectations.

Self-ratings on the Learning Activity Self-Study Checklists were consistently higher than observer ratings, a finding consistent with previous research (Hansen et al., 2014; IRIS Center,
Item analysis suggested some additional trends. Both self and observer ratings for exposure queries were consistently marked as not present. All teachers, but only one observer, marked yes to the item asking whether unit tests were kept up to date and informed pacing and instruction. It is possible that there was confusion regarding this item since the wording includes a reference to pacing. All teachers are required to input student unit test scores on a Fundations database and may have responded to this question according to whether they were administering unit tests and up to date on the expectation to log the scores, omitting consideration of overall program pacing.

No observations resulted in an affirmative response to the query: “Students smoothly transition from one activity to the next with little or no loss of instructional time” and only half of the observations indicated that students were following directions throughout the lesson. However, all observer ratings affirmed the presence of specific student behaviors such as tapping, manipulating letter tiles, and actively participating. Although the differences in ratings between global and more specific student behaviors may seem contradictory, the majority of self and observer responses regarding adherence, program delivery, and student responsiveness suggest that these areas are highly aligned with expectations for fidelity of implementation.

**Evaluation Question 2. What was the impact on first grade student reading performance as measured by running records assessments following implementation of Fundations during the 2017-2018 school year?**

Two different approaches were used to analyze whether there was an impact on running records scores following implementation of Fundations. First, cohort scores were evaluated relative to March running records benchmarks. This analysis did not indicate a consistent increase in the percentage of students meeting the benchmark. Next, an ANCOVA was
conducted to compare March running records levels between the school year cohorts while controlling for students’ September reading scores. This analysis found significant differences between the cohort groups and demonstrated that there was an impact of Fundations on running records scores. Post-hoc comparisons indicated that the 2019-2020 adjusted mean score (10.05) was the highest across all years and the 2018-2019 adjusted mean score (9.88) was the second highest. Quite significantly, the score increases in 2018-2019 and 2019-2020, following the implementation of Fundations, correspond to nearly one full reading level higher relative to scores for two out of three cohorts who were not exposed to Fundations. It is important to consider why the benchmark analysis suggested a different conclusion than the ANCOVA, since these results identify a gap in not only the approach to evaluating Fundations, but also how the school is measuring the impact of other curricula.

Allegra closely adheres to the RTI framework in monitoring student progress and evaluating curriculum. One method of determining curriculum effectiveness is to use progress monitoring data to determine whether 80% of students are meeting benchmarks (Blackburn & Witzel, 2018; Harlacher et al., 2015; Preston et al., 2016; Wixson, 2011). Correspondingly, the main impetus for the adoption of Fundations at Allegra was to strengthen the core reading program with the goal of increasing the percentage of students meeting reading benchmarks. Therefore, this analysis was a critical indicator identified for review in determining the effectiveness of the program. Results of this program evaluation indicated that only one out of three cohorts who received Fundations instruction met the threshold of 80% of students meeting or exceeding March benchmark levels, specifically the cohort from the second year of Fundations implementation. In comparison, the percent of students meeting benchmark levels for two out of three cohorts in the years just prior to the introduction Fundations did meet or exceed
this target level. Close analysis further demonstrates that running records levels were the lowest across all six cohort years during the first year of Fundations implementation, in 2017-2018. Conversely, scores during 2018-2019, which was the second year of Fundations instruction, were much higher, and 85% of students met the March benchmark level. During that year, the school purchased a support program from Wilson that included professional development seminars, access to a trainer, and two onsite visits focused on observations and feedback sessions.

These findings do warrant some consideration of whether the number of students meeting the established running records benchmark level was lower during 2 out of 3 years of Fundations instruction due to the early stage of program implementation or lack of professional development during 2 of those years. Fundations is a complex program, which requires teachers to lead multiple instructional activities in less than 30 minutes while incorporating different materials, managing movement and transitions for students, and guiding students in appropriately using items such as magnetic boards and composition books. Teachers obviously needed time to build their knowledge and skills in effectively delivering the program and this may have resulted in a decrease in student performance during the transition period associated with implementation dip (Fullan, 2001).

However, the application of the RTI approach for the evaluation of Fundations, which simply considered the percentage of students meeting or exceeding benchmarks, also did not account for baseline differences in reading levels, nor consideration of differences in the growth of reading scores between benchmark periods. Therefore, a second analysis, the ANCOVA, was conducted to compare March running records levels between the school year cohorts while controlling for students’ September reading scores. This analysis found significant differences between the cohort groups. Post-hoc comparisons indicated that the 2019-2020 adjusted mean
score (10.05) was the highest across all cohort years. It is important to note that students in this group were the first cohort to have two years of Fundations instruction, since they were exposed to the Fundations program during Kindergarten and continued with the program during their first-grade year. In addition, the 2018-2019 adjusted mean score (9.88) was the second highest across cohorts. It was during this school year that teachers participated in ongoing professional development and coaching support from a Wilson Fundations trainer. Further analysis of adjusted mean scores demonstrated that the running records scores from the post-Fundations implementation years of 2018-2019 and 2019-2020 correspond to nearly one full reading level higher relative to scores for two out of three of the cohorts who were not exposed to Fundations.

Analysis of the adjusted mean scores also indicated that Fundations appears to be more effective for groups of students whose initial reading levels are lower. Wilson indicates that the Fundations program was developed following success with the Wilson Reading System, which is an intensive reading intervention program based on phonological-coding research and Orton-Gillingham principles. In addition, some of Wilson’s literature describes Fundations as both prevention (Tier 1) and early intervention (Tier 2) programs (Wilson Language Training Corporation, n.d.). Therefore, the larger increases in reading levels for students who have lower measured reading skills prior to Fundations instruction seems logical, since the teaching strategies and program design of Fundations are aligned with proven reading intervention approaches.

Notably, neither approach to evaluating Fundations indicated an impact of the program on cohort scores during 2017-2018, which was the first year of implementation. This suggests that implementation dip may have occurred, especially since those teachers were not provided with professional development or other types of support. Ultimately, it will be critical to continue
monitoring cohort trends since Fundations is still in the early years of implementation and three cohorts of students moved to online instruction during the last trimester of the 2019-2020 school year due to the COVID-19 pandemic.

In summary, the RTI approach to evaluating the effectiveness of the Fundations did not demonstrate that the program led to increases in the percentage of students meeting benchmarks. However, ANCOVA results indicated that, after adjusting for students’ September running records levels, scores for cohorts in the last two years of Fundations implementation were almost one full reading level higher than scores for two of the three cohorts who did not have Fundations instruction. In addition, groups of students who started the program with lower reading levels demonstrated the greatest increases. In consideration of the different approaches underlying the two analyses conducted, and how performance is correspondingly evaluated, there is evidence to support an impact of Fundations on reading performance.

**Evaluation Question 3: What are participating teachers’ perceptions regarding Fundations in terms of the following aspects of program implementation:**

- a. How equipped and knowledgeable do teachers feel in delivering Fundations program instruction?
- b. What are perceived program strengths or highlights?
- c. What are perceived program weaknesses or challenges?
- d. What are areas in which teachers would like more support in delivering the Fundations program?

Survey responses provided confirmatory evidence for the program exposure challenges noted on the Fundations Learning Activity Self-Study Checklists. When responding to the questions about program challenges and supports needs, teachers repeatedly reported that the
current master schedule does not allocate the minimum lesson time or frequency that is recommended by the program publisher. All responses that referred to issues related to adherence were also linked to exposure concerns. Therefore, adherence is an area which will warrant close attention once exposure concerns are addressed in order to determine whether further support is needed to deliver the program as designed.

Of note, all six teachers identified a need for additional and ongoing professional development support to implement the program, with specific requests for coaching and observer feedback. This finding requires additional consideration since responses to the question about feeling equipped and knowledgeable in delivering Fundations suggested that teachers perceived themselves as “very” to “fairly” competent. Also, none of the teachers reported feeling as though they lacked knowledge or were ill-equipped to teach Fundations. In addition, observer ratings on the Learning Activity Self-Study Checklists suggested that teachers were generally adhering to program specifications and delivering the instruction as intended, aside from the external scheduling issues impacting program exposure. It is therefore possible that teachers’ perceptions regarding the need for additional support related more to feelings of self-efficacy rather than a reflection of their instructional expertise. Regardless, professional development combined with coaching has the potential to address both factors. Tschannen-Moran and McMaster (2009) found that professional development combined with modeling, practice sessions with colleagues, and follow up coaching led to increases in both self-efficacy for reading instruction and higher levels of program implementation. The Wilson professional development package provided during the 2018-2019 school year included all of these components and teachers’ responses on the survey specifically requested this support.
Teachers identified both the overall design of the curriculum and the materials as program strengths. Fundations lessons provide repetition and promote mastery learning, and the student materials in particular were reported to engage students in learning. No survey responses indicated dissatisfaction with Fundations, rather teachers were focused on garnering more time to implement the program in accordance with publisher guidelines.

**Implications for Policy and Practice**

Findings from this program evaluation suggest several implications for policy and practice at Allegra. Table 12 provides a summary of findings and the related recommendations.

**Table 12**

*Research Findings and Recommendations*

<table>
<thead>
<tr>
<th>Findings</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundations lessons are not scheduled for the prescribed length or frequency, significantly limiting program exposure</td>
<td>Adjust schedules in Grades K-2 to allocate minimum instructional time for the program per publisher guidelines</td>
</tr>
<tr>
<td>Self-ratings of fidelity generally reach 80% but observer ratings are consistently lower</td>
<td>Increase frequency of self and observer checklists and add feedback sessions</td>
</tr>
<tr>
<td>Running records scores for cohorts receiving Fundations do not consistently meet 80% benchmark. However, ANCOVA results indicate higher adjusted mean scores for two out of three Fundations cohorts</td>
<td>Gather other available measures of reading performance and triangulate data for evaluation. Include indicators of student progress along with consideration of benchmark cutoffs</td>
</tr>
<tr>
<td>Teachers unanimously request ongoing professional development and support</td>
<td>Provide additional professional development from Wilson, to include coaching and peer observations. Ensure participation of key school leaders to build understanding of how to support program implementation</td>
</tr>
</tbody>
</table>
**Recommendation 1**

School leadership must adjust the master schedule and allocate the prescribed time for Fundations lessons. The information provided by both the survey and the self-study checklists clearly identified scheduling as a core issue impacting fidelity of implementation. The current master schedule allocates around half of the minimum instructional time recommended by the publisher. As a result, teachers are not able to teach all components of a lesson and report that pacing is not on track to complete instruction by the end of the school year.

Fundations materials specifically emphasize the important role of implementing the program with fidelity, to include lesson length, order of activities, and pacing, in order to achieve the expected student outcomes (Wilson Language Training Corporation, 2018, p. 23). In addition, researchers emphasize that a reduction in exposure significantly limits any curriculum evaluation conclusions (Azano et al., 2011; Benner et al., 2011; O’Donnell, 2008). Therefore, scheduling must be adjusted so that the Allegra curriculum council is better positioned to evaluate the effectiveness of the Fundations program.

Although adjusting the schedule may seem like a straightforward solution, it will also be appropriate to include teachers in the discussions and planning. Azano et al. (2011) highlights the distinction between external fidelity factors, such as exposure limited by master scheduling, and internal classroom factors, but also found an interesting relationship between the two. Teachers who had higher perceptions regarding the amount of available instructional time available also demonstrated higher adherence and quality of delivery. Simply adding time or moving around the schedule may not take into account teacher perceptions about the allocated time, such as whether there is an impact to instruction at a specific time of the school day due to transitions or other routine tasks that cause interruptions.
**Recommendation 2**

The school leadership is advised to increase the frequency of self and observer Fundations Self-Study Checklist completion to at least once every other month. The current practice is for teachers to conduct one self-rating in the fall and for an observer to complete another checklist in January. There are also no formal expectations for a follow up discussion after the observer completes the checklist.

Both self and observer ratings are valuable, and plans should include a balance of both, especially in consideration of the pattern evident during this evaluation of higher self-ratings relative to those conducted by observers. This is a noted concern regarding self-reports of fidelity, and it is therefore recommended to complement indirect, or self-administered measures, with direct assessments when possible (Hansen et al., 2014; IRIS Center, 2014; Noell et al., 2005). More frequent observations will also promote continual reflection on implementation and reduce *drift*, a process that occurs when teachers inadvertently change or omit aspects of a program (IRIS Center, 2014). In addition, follow up meetings should be scheduled after each observation. Observers have a unique opportunity to provide individual feedback to each teacher and also to draw attention to aspects of Fundations implementation that might benefit from additional training or practice, ultimately improving fidelity of implementation (Vanderburg & Stephens, 2010).

**Recommendation 3**

The school leadership team is advised to incorporate additional measures of reading to monitor student progress and evaluate the effectiveness of the core reading program. Running records assessments were initially selected as the sole indicator of student performance since they were readily available, and the school was not consistently using other outcome measures of
reading for students in Grades K-2. Although running records scores are valid and appropriate measures of reading performance, they are only one source of information and are typically used to determine whether students are meeting a set benchmark. The analysis conducted during this program evaluation revealed that the customary approach to interpreting running records scores does not offer a complete depiction of student performance or demonstrate the impact of a reading program. Therefore, it is important to consider multiple sources of information and triangulate data when making instructional or curricula decisions. The process of triangulation encourages analysis of whether various sources of data corroborate or refute each other and also promotes deeper consideration of data (Boudett et al., 2005; Venables, 2014). Some options to include when triangulating data include assessments that have been added since the school introduced Fundations, such as Fundations unit tests and the Milestones standardized assessments, which measure student reading performance 3 times per year (Educational Records Bureau, n.d.). A related recommendation is to review data across time intervals instead of simply evaluating benchmarks cutoff scores at specific time points (Boudett et al., 2005). This type of information is provided for the Milestones assessments and summary reports include student scores and related percentiles along with information indicating whether individual students or cohorts are making expected progress. At the group level, Milestones reports also indicate the percent of the grade level cohort scoring below, at, or above the norm. This would be valuable information to consider in conjunction with running records scores, and readily provide a second indicator of whether 80% of the cohort is performing at or above benchmark levels. In summary, triangulation will ensure that various types of data and means of assessing performance are considered for educational planning and also when conducting future program evaluations.
**Recommendation 4**

The teachers who were surveyed unanimously requested additional professional development to improve the implementation of Fundations, specifically asking for a Wilson trainer. The purchase of the Fundations program provides all teachers with access to an online site with demonstration videos, expert tips, and a teacher discussion board. During the 2018-2019 school year, the school supplemented this basic support with a professional learning package that included an onsite Wilson Fundations trainer. This trainer provided teachers with five sessions of group professional development, two onsite class visits with observations and feedback sessions, and ongoing online access for questions and implementation support. This in-person and hands-on professional development model offered teachers ongoing and high levels of support along with individualized training and feedback, all factors which have demonstrated effectiveness for changing teaching practices and improving student outcomes (Carlisle & Berebitsky, 2010; Garet et al., 2008; Vanderburg & Stephens, 2010). Therefore, the leadership team is advised to provide this requested support given that it is supported by research and perceived as beneficial by teachers.

The request for additional support and professional development was made in the same context in which teachers indicated that they felt proficient in delivering Fundations instruction, leading to a consideration of the possible role of teachers’ self-efficacy on their perceptions. Although certainly an area for additional investigation, the type of individualized coaching that is provided under the Wilson professional learning model has been shown to increase teacher self-efficacy, along with changing teaching practices and leading to improvement in student achievement (Carlisle & Berebitsky, 2010; Tschannen-Moran & McMaster, 2009).
Teachers also requested opportunities for peer observation and coaching, both of which have the potential to strengthen the connection between externally provided professional development training and sustained classroom practices (Goodwin, 2015). A related recommendation is for grade level teachers to set up a schedule for continual study of both fidelity of implementation and student response since these practices are associated with significant and lasting change (Joyce et al., 2014). These recommendations are connected to the support models provided by Wilson and can be established with the guidance of the trainer.

Both the Lower School Head and Curriculum Director at Allegra have critical roles in leading aspects of Fundations implementation, including scheduling, organizing fidelity checklists, conducting assessments, and selecting the appropriate professional development and ongoing support for teachers. Therefore, it is strongly recommended that one or both of these administrators complete the Fundations training and participate in any ongoing professional support activities.

**Recommendations for Future Research**

The results of this program evaluation suggest several directions for future research. It will be important to conduct a future program evaluation once the school leadership adjusts the school schedule and allocates the prescribed instructional time for Fundations. Although there is some evidence to suggest that Fundations instruction has led to increases in running records scores, it will be critical to determine if that trend continues or improves once the program is implemented as designed with regard to program exposure. It will also be informative to continue comparing scores across cohorts to determine whether there are differences relative to the number of years that students in each cohort have been provided with Fundations instruction.
Another area for future research is to investigate the impact of the program on standardized measures of reading, such as the Comprehensive Testing Program (Educational Records Bureau, n.d.), which the school administers to student in Grades 3-9 each spring. Longitudinal research has found that students who had explicit “code” instruction in Kindergarten had the best reading outcomes in third grade, and that early reading skills are linked to performance on standardized measures of verbal abilities in later grades (Simmons et al., 2008; Sparks et al., 2014; Stanley et al., 2017). Therefore, it will be informative to determine whether there is a pattern of long-term impact on reading for students who had Fundations instruction and whether performance varies by the number of years of instruction.

The scope of this program evaluation did not provide an opportunity for a deep analysis of teacher perceptions or feeling of self-efficacy. However, the pattern of responses on the survey and on the Fundations Learning Activity Self-Study Checklists suggests the possibility that self-efficacy may be a factor impacting program implementation. This would be an interesting construct to study before and after providing the requested professional development from Wilson, since that type of support is associated with increases in feelings of self-efficacy along with improvements in student achievement.

Summary

Literacy is well-established as fundamental for success in school and in life, yet national data clearly indicate that students continue to underperform on measures of reading. Schools play an important role in addressing this issue by evaluating which practices support the development of reading skills. This program evaluation examined both process and short-term outcomes associated with the implementation of the Fundations curriculum, a program based on the essential components of reading instruction but without a strong research base to demonstrate
effectiveness. Results underscore the critical importance of examining fidelity in the context of evaluating the effectiveness of core curriculum, since it was clear that the program was not being implemented as designed. Despite issues associated with program exposure, study results indicated that student reading scores following Fundations implementation had increased by almost one full reading level relative to two out of three years analyzed prior to the introduction of the program. In addition, it was evident that teachers were seeking more support to implement the program and were, quite fortunately, in a position to identify specific resources that had been effective for them during earlier phases of Fundations implementation.

The school leadership at Allegra is well positioned and financially resourced to implement the recommendations provided. Given the already promising impact on student performance, there is a strong potential that several minor program adjustments will positively impact the reading development of students at Allegra and result in the long-term gains predicted for later academic and lifetime achievement.
APPENDIX A

Fundations Level 1 Scope and Sequence

By the End of Level 1, Students Will Be Able To:

- Segment syllables into sounds (phonemes) – up to five sounds
- Name sounds of primary consonants, consonant digraphs, and short and long vowels when given letters
- Name and write corresponding letter(s) when given sounds for consonants, consonant digraphs, and short and long vowels
- Print all uppercase and lowercase letters
- Distinguish long and short vowel sounds
- Name sounds for r-controlled vowels
- Name sounds for vowel digraphs and vowel diphthongs
- Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words
- Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions
- Read and spell the first 100 high frequency words, including irregular words (trick words)
- Identify word structures such as blends, digraphs, base words, suffixes, syllable types (closed and vowel consonant-e syllables)
- Read and spell CVC, CCVC, CVCC, CCVCC, CVCe words
- Read and spell compound words and other words with two syllables by breaking them into syllables
- Read and spell words with -s, -es, -ed, -ing suffixes when added to non-changing base words
- Apply correct punctuation (period, question mark, exclamation point)
- Apply capitalization rules for beginnings of sentences and names of people, places, and dates
- Explain major differences between fictional stories and informational text
- Explain narrative story structure including character, setting, and main events
- Retell key details of a fictional story and demonstrate understanding
- Use illustrations and/or details in a story to describe its characters, setting, and events
- Ask and answer questions about key details in a text
- Ask and answer questions to help determine or clarify the meaning of words and phrases in a text
- Identify specific words in a story that tell or suggest details
- Identify who is telling the story at various points in a text
- Identify the main topic and retell key details of informational text
- Identify and explain new meanings for familiar words and newly taught words
• Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts
• Construct complete sentences using vocabulary words
• Use sentence-level context as a clue to the meaning of a word or phrase
• Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking)
• Sort words into categories to gain a sense of the concepts the categories represent
• Define words by category and by one or more key attributes
• Apply beginning dictionary skills
• Identify real-life connections between words and their uses
• Use verbs to convey a sense of past, present, and future
• Read controlled stories with fluency, expression, and understanding
APPENDIX B

Fundations Level K Self-Study Checklist

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Unit</th>
<th>Week</th>
<th>Day</th>
<th>Lesson Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL TIER 1 IMPLEMENTATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson is scheduled for the prescribed amount of time (25-35 minutes)</td>
<td>Yes</td>
<td>No</td>
<td>Students follow directions throughout lesson</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Teacher and student materials are complete and resources (i.e. posters/notebooks) are visible and referenced by students</td>
<td></td>
<td></td>
<td>Students actively participate by responding and doing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson planning is evident, a written lesson plan is used</td>
<td></td>
<td></td>
<td>Students tap correctly, as directed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacing through Unit is on track to complete instruction by year end</td>
<td></td>
<td></td>
<td>Students manipulate letter tiles, as directed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Activities are presented in prescribed sequence for Unit/Week/Day</td>
<td></td>
<td></td>
<td>Students demonstrate mastery of previously taught concepts for reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures for Learning Activities are evident</td>
<td></td>
<td></td>
<td>Students demonstrate mastery of previously taught concepts for spelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Tests are administered and scored for each unit</td>
<td></td>
<td></td>
<td>Students demonstrate success with new material and challenges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Test Trackers are kept up-to-date and inform pacing and instruction</td>
<td></td>
<td></td>
<td>Students' letter formation demonstrates mastery and neatness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students manage materials, following efficient routines</td>
<td></td>
<td></td>
<td>Teacher circulates to monitor learning and to offer feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students smoothly transition from one activity to the next with little or no loss of instructional time</td>
<td></td>
<td></td>
<td>Teacher uses questioning techniques to check understanding, reinforce concepts, and correct errors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments regarding implementation in general:
**APPENDIX C**

**Fundations Level 1 Self-Study Checklist**

This document provides a checklist of the general practices as well as specific Learning Activity procedures. It is recommended that teachers use this as a self-study guide as they are learning the Level 1 activities or to check to be sure there is not an unintentional drift over time. It may also be helpful to use for peer feedback and support.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Unit</th>
<th>Week</th>
<th>Day</th>
<th>Lesson Start Time</th>
<th>End Time</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>GENERAL TIER 1 IMPLEMENTATION</strong></th>
<th>Yes</th>
<th>No</th>
<th>Students follow directions throughout lesson</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson is scheduled for the prescribed amount of time (25-35 minutes)</td>
<td>No</td>
<td>Yes</td>
<td>Students actively participate by responding and doing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher and student materials are complete and resources (i.e. posters, notebooks) are visible and referenced by students</td>
<td>No</td>
<td>Yes</td>
<td>Students manipulate letter tiles, as directed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson planning is evident; a written lesson plan is used</td>
<td>No</td>
<td>Yes</td>
<td>Students demonstrate mastery of previously taught concepts for spelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacing through Unit is on track to complete instruction by year end</td>
<td>No</td>
<td>Yes</td>
<td>Students demonstrate success with new material and challenges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Activities are presented in prescribed sequence for Unit/Week/Day</td>
<td>No</td>
<td>Yes</td>
<td>Students demonstrate application of taught skills in Composition Books</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures for Learning Activities are evident</td>
<td>No</td>
<td>Yes</td>
<td>Students' letter formation demonstrates mastery and neatness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Tests are administered and scored for each unit</td>
<td>No</td>
<td>Yes</td>
<td>Teacher circulates to monitor learning and to offer feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Test Trimmers kept up-to-date and inform pacing and instruction</td>
<td>No</td>
<td>Yes</td>
<td>Teacher uses questioning techniques to check understanding, reinforce concepts, and correct errors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students manage materials, following efficient routines</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students smoothly transition from one activity to the next with little or no loss of instructional time</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX D

Fundations Level 2 Self-Study Checklist

This document provides a checklist of the general practices as well as specific Learning Activity procedures. It is recommended that teachers use this as a self-study guide as they are learning the Level 2 activities or to check to be sure there is not an unintentional drift over time. It may also be helpful to use for peer feedback and support.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Unit</th>
<th>Week</th>
<th>Day</th>
<th>Lesson Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL Tier 1 IMPLEMENTATION</td>
<td>Yes</td>
<td>No</td>
<td>Students follow directions throughout lesson</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Lesson is scheduled for the prescribed amount of time (25-35 minutes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher and student materials are complete and resources (i.e. posters/notebooks) are visible and referenced by students</td>
<td>□</td>
<td>□</td>
<td>Students actively participate by responding and doing</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Lesson planning is evident, a written lesson plan is used</td>
<td>□</td>
<td>□</td>
<td>Students tap, as directed</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Pacing through Unit is on track to complete instruction by year and</td>
<td>□</td>
<td>□</td>
<td>Students manipulate letter tiles, as directed</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Learning Activities are presented in prescribed sequence for Unit/Week/Day</td>
<td>□</td>
<td>□</td>
<td>Students demonstrate mastery of previously taught concepts for spelling</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Procedures for Learning Activities are evident</td>
<td>□</td>
<td>□</td>
<td>Students demonstrate success with new material and challenges</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Unit Tests are administered and scored for each unit</td>
<td>□</td>
<td>□</td>
<td>Students demonstrate application of taught skills in Composition Books</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Unit Test Trackers kept up-to-date and inform pacing and instruction</td>
<td>□</td>
<td>□</td>
<td>Students’ letter formation demonstrates mastery and neatness</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Students manage materials, following efficient routines</td>
<td>□</td>
<td>□</td>
<td>Teacher circulates to monitor learning and to offer feedback</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Students smoothly transition from one activity to the next with little or no loss of instructional time</td>
<td>□</td>
<td>□</td>
<td>Teacher uses questioning techniques to check understanding, reinforce concepts, and correct errors</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Comments regarding implementation in general:
APPENDIX E

Fundations Teacher Survey

What grade level do you teach?
Your answer:

How long have you been teaching Fundations?
Your answer:

How equipped and knowledgeable do you feel in delivering the instruction?
Your answer:

Please share some program highlights
Your answer:

Please share some program challenges
Your answer:

Is there an area in which you would like more support?
Your answer:
REFERENCES


https://www.edreports.org/reports/detail/wilson-fundations-1#the-report


https://www.congress.gov/114/plaws/publ95/PLAW-114publ95. pdf


https://doi.org/10.1111/j.1750-8606.2008.00072.x


https://mydigitalpublication.com/publication/?i=425075&article_id=2836413&view=articleBrowser


https://doi.org/10.1080/00405841.2016.1184536


http://www.ascd.org/publications/educational-leadership/summer15/vol72/num09/Getting-Unstuck.aspx


https://doi.org/10.1086/674420


https://www.simbainformation.com/Reading-Survey-10538016

https://doi.org/10.1177/0022219407313587


https://doi.org/10.1007/0-306-47559-6


https://www.wilsonlanguage.com/programs/fundations/overview/


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