VANCOUVER ISLAND UNIVERSITY

Orton-Gillingham Classroom Educator Small Group Reading Intervention

by

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We accept this thesis as conforming to the required standard.

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Abstract

Research indicates that weak phonological skills will result in difficulty in decoding words in text, thus making reading a very frustrating process. Through action research, the researcher examined the implementation of Tier 2 small group reading intervention using the Orton-Gillingham approach. The Orton-Gillingham approach is a multisensory method of teaching phonological and phonemic awareness, syllabication, sight words, along with spelling rules and concepts. The instruction is explicit, systematic, cumulative, direct, and sequential. Five grade two students met with an Orton-Gillingham practitioner twice a week over the nine-week period. Results indicated that all of the students increased in fluency, accuracy and number of sight words that they could read. As well, statements from the students suggested that they enjoyed the process. Implications of the study along with considerations for the improvement of the group size and setting are provided in the conclusions.

*Keywords:*. Orton-Gillingham approach, reading intervention, multisensory, learning disabilities
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Chapter 1

Introduction

The phrase “learn to read to read to learn” (Loveless, 2019, p.1) is often used in the educational system to describe the two milestones in reading development. Learning to read occurs in the primary grades whereby the focus is on phonological awareness, the ability to recognize, understand and manipulate sounds in spoken language, as well as phonics, the process of matching sound to symbol. The emphasis is on learning to decode and memorize basic words to achieve fluency. Reading to learn becomes the focus in the intermediate grades. Once fluency in decoding has been reached, the students can now read more difficult text with the emphasis on information and comprehension (Armistead & Armistead, 2006; Berg & Stegelman, 2003; Chall, 1983; Loveless, 2019; Torgesen, 2004; Wanzek, Wexler, Vaugh, & Ciullo, 2010).

Unfortunately, many students reach the intermediate grades without having achieved the ability to read at grade level. This problem occurs in all schools irrespective of socio-economic and cultural demographics. The National Institute of Health (2013) recognized that up to 10% of people have difficulty reading, including those of average and even above average intelligence. Torgesen (2004) states that once students reach grade 4, the inability to read at grade level will create a downward spiral in their academics. For a student who cannot read at grade level, they are then faced with the challenge of reading difficult text with the purpose of learning new knowledge. If the student cannot understand the text then, of course, learning does not happen.

Early intervention is essential for struggling readers (Slavin, Lake, Davis & Madden, 2011). Moreover, an effective evidence-based reading intervention is fundamental. In West Vancouver, British Columbia, at the school where I work as a grade 5 teacher, I, unfortunately, see students...
in my class who cannot read beyond a grade 3 level or lower. Although these students participated in an early reading intervention, there seems to have been very little progress.

As a grade 5 teacher, the focus in my classroom is for students to be able to read to learn. I see first-hand, how a student who cannot read beyond a grade 3 level, will quickly fall behind his peers. Acquiring new knowledge through reading is an arduous process for these students whereby failure to succeed slowly impacts the students’ self-esteem and confidence. Outside of the public school system, I work one-on-one with struggling readers using the Orton-Gillingham (OG) approach. Through a direct, sequential, multisensory method, I have seen students progress from a grade 3 level reading ability in September to achieving a grade 6 level in January. It is extremely gratifying to witness this success. The student’s growth in self-confidence and pride is incomparable. Research on the OG approach states that the direct, sequential, multisensory approach to teaching phonemic awareness and phonics is an effective method for developing the reading skills in struggling readers (Allison, 2016; Birsh, 2011; Henry, 1998; Joshi, Dahlgren, & Boulware-Goode, 2002; Ritchey, & Goeke, 2006). My professional goal in this action research study is to improve my skills as an OG practitioner, to test this approach in a small group setting and to hopefully, if this approach is successful, be part of the learning support team whereby this reading intervention can be taught and used within our learning support services. Through action research, I will explore the following question: How effective is the Orton-Gillingham approach in supporting the reading skills of struggling primary students within a small group, Tier 2 context?

In Chapter 1, I will discuss my experience as an OG practitioner. I will then provide an overview of the Response to Intervention (RTI) model and its implementation in our public-school system. Early intervention in combination with evidence-based programs, the cornerstone
of RTI, will then be discussed. Next, I will explain the current reading intervention used at our school within the learning support setting. The exodus of families leaving the public system in search for an OG approach taught in the private sector will be discussed followed by an outline of the problem as I see it. Finally, I will provide a brief summary of my study.

**Personal Context as an Orton-Gillingham Tutor**

I have worked, outside of the public school system as an OG practitioner for five years. My experience has shown me the benefits of direct instruction using a multisensory approach to teach phonological awareness, decoding, sight word recognition, syllabication, and spelling rules. Combined mastery of these skills helps to improve reading fluency and thus comprehension in all readers (Allison, 2016; Armistead & Armistead, 2006; Berg & Stegelman, 2003; Torgesen, 2004; Wanzek et al., 2010; Zylstra, 2013). I also find that this approach is engaging. The lessons are designed in three segments starting with the review of newly learned and known material. We begin with symbol sound recognition followed by blending of the phonograms, letter or combination of letters that make a sound. Next, we review sight word recognition through a drill deck. Attaching sound to a symbol is reassessed through spelling activities. The next segment of the lesson consists of the learning of new material which could be a new phoneme, a syllable, morphology or a spelling concept. We play various games to practice newly acquired knowledge. The students look forward to these games as it is a chance to outwit their teacher. The final segment of the lesson is for the student to read a passage to me that is at his reading level. Research has shown that scaffolding the text so that the reading passage is closer to the student’s reading ability will help to improve fluency (Kuhn, 2004; Kuhn et al., 2006; Wanzek et al., 2010). As defined by Fountas and Pinnell (1999), fluency is the ability to read orally with speed, accuracy, and vocal expression. “Fortunately, as word recognition
becomes automatic, less attention needs to be expended on decoding” (Kuhn et al., 2006, p. 359). As the student attains fluency at one grade level in reading, then he can advance to the next level utilizing a memory bank of previously acquired words and phonemes (Kuhn et al., 2006). The concept of text complexity and learning to read will be discussed further in Chapter 2.

My interest in the OG approach led to further studies as an OG classroom educator. I took a course at the REACH Orton-Gillingham Learning Centre Inc. in North Vancouver, British Columbia. At this 40 hour workshop, I was fortunate to be instructed by Corey Zylstra, a well-recognized OG practitioner. She has led numerous workshops and conferences in countries such as Kuwait, Australia, Egypt, Oman and the USA, educating the participants on the use of the OG approach in the classroom. It was through this process that I began to think of using the OG in a small group setting. I was curious as to how this method could be implemented amongst a group of five students, yet still provide to the specific needs of each child. This led me to the next question: How will my reading intervention differ from what is presently being used in the learning support centre? To answer this question, an explanation of the intervention model used at our school is necessary. This model is called the Response to Intervention (RTI).

**The Response to Intervention Model**

At our school, the process for deciding which student will receive extra support with a learning support teacher is based on the RTI model. British Columbia’s policy of Inclusion (2016) addresses the how, when, and where to support the needs of our at-risk students. The Inclusion policy states that “all students are entitled to equitable access to learning, achievement and the pursuit of excellence in all aspects of their educational programs” (BC Ministry of Education, 2016, p. 2). A multi-tiered instructional model known as Response to Intervention is a result of the No Child Left Behind Act in the United States. The purpose of RTI is to ensure that
all students have access to the supports that they need based on assessments and data collected by the teachers. RTI, as a framework which supports creating more inclusive school settings, was adopted by British Columbia, along with other provinces, as the model supports creating a more inclusive school setting. According to McIntosh et al. (2011), the focus of the model is to identify the number and types of students who need extra support, determine the kinds of educational services required, and, finally, clarify who would be providing these services. RTI is grounded on the principle that evidence-based practice is implemented in the classroom which is identified as Tier 1 service. When the classroom teacher recognizes that a student is not progressing, then a referral is made to the School-Based Team (SBT) which consists of specialists who focus on the child’s physical, emotional, and academic needs. Collaboration between the SBT and classroom teacher is imperative to the success of the RTI model. The outcome of the referral may lead to a suggestion of further strategies used within the classroom or a shift into Tier 2, whereby the student will receive targeted interventions through the learning support teacher and other specialists as needed. Ongoing monitoring and screening will continue. Over time, if assessments indicate that the student is progressing, then Tier 2 intervention will be suspended, and the student will continue with the regular Tier 1 classroom program. However, if the assessments indicate that the student shows little progress in Tier 2, then the child will move into Tier 3, and intensive intervention will be provided by either the learning support teacher within the school or specialists within the school district. RTI is intended to be fluid whereby students will move through the tiers based on ongoing monitoring and assessments. The model also relies on quality practice using evidence-based instructions and programs. Within the RTI framework, early identification of students with learning and behavior needs is attained through a focus on instructional quality within the classroom to prevent challenges, a process of universal
screening, and progress monitoring to evaluate the effectiveness of instruction (McIntosh et al., 2011).

**Early Identification**

RTI can be an effective model, particularly when there is early identification and intervention to preventing reading difficulties and disabilities. In a meta-analysis of research from a period of over 20 years, authors Wanzek et al. (2010) determined that students with poor reading skills at grade 4 may never catch up to their peers unless they receive intensive intervention. Torgensen (2004) goes further to suggest that children who are poor readers at the end of grade 1 seldom acquire average-level reading skills by the end of elementary school.

Abbot and Berninger (1999), defined reading achievement based on a study by Chall from 1983. Chall stated that there is a shift in the acquisition of reading as the student moves into grade 4. In the primary years, the students are learning to read, while students in grade 4 and up are now reading to learn. Stanovich’s study (1986) specifically showed that “children’s reading ability at the first-grade level generally is a good indicator of their 11th grade reading proficiency… those who read well in the beginning practice more and improve” (p. 404). Torgensen (2004) explains that “delayed development of reading skills affects vocabulary growth, alters children’s attitudes and motivation to read and leads to missed opportunities to develop comprehension strategies” (p. 2). However, Torgensen (2004) provided more optimistic perspective. He stated that “we can say with confidence that if we intervene early, intensively, and appropriately, we can provide these children with the early reading skills that can prevent almost all of them from ever entering this nasty downward spiral” (p. 2).

The identification of students at risk is approached at our school with reading assessments carried out at the beginning of the school year. In September, a Dynamic Indicator for Basic
Early Literature Skills Oral Reading Fluency (DIBELS Oral Reading Fluency or DORF) (2011) is administered to every student in kindergarten up to grade 6. At the grade 2 level, the DORF (2011) assessment consists of the student reading a grade level passage in one minute. The examiner then tabulates the number of words read correctly in that minute (CWPM), along with the accuracy of the words read. The ability for the student to retell the story is also scored on a point system based on number of key points that they student could remember. This data is then compared to norms for that age group which is referred to as the benchmark. A benchmark is derived from longitudinal research which examines how a score on a measure at a point in time predicts later reading outcomes (Dynamic Measurement Group, Inc., 2011). For example, in September, the average grade 2 student should be able to read at least 52 CWPM with 90% accuracy. Comprehension noted in the ability to retell the main points of the story should have a score of 16 points. It is suggested that a grade 2 student who reads below the benchmark, 37-51 CWPM with an accuracy of 81%-89%, will likely need strategic support from a teacher. A student who reads well below the benchmark, 0-36 CWPM with an accuracy of 0%-80%, will likely need intensive support. The learning support teachers will use the data from the DORF (2011) assessment to identify and formulate their Tier 2 reading and writing groups using an intervention that best suits their needs.

**Evidence-based Intervention**

As stated previously, the RTI model is most effective when early intervention is applied using an evidence-based intervention. The difficulty that many learning support teachers face is knowing which evidence-based intervention will best fit the needs of the students. Over the last few years, the learning support team at my school has been using a program called *Phonics for
*Reading* by Archer, Flood, Lapp, and Lungren (2011). This reading intervention differs from the OG approach in various ways.

**Phonics for Reading compared to the Orton-Gillingham approach.** Both the *Phonics for Reading* (2011) intervention and the Orton-Gillingham approach are evidence-based. The effectiveness of both can be validated through research. What differs between the two interventions is the style of delivery, the scope and sequence for introduction of new material and concepts and well as the oral reading component of the lesson.

To begin with, the *Phonics for Reading* (2011) intervention is delivered through a consumable book. Each student in the group has a booklet and follows along as the teacher provides the instruction. There are 30 lessons in each booklet which build upon material learned in the previous lesson. In the program, phonological awareness skills are practiced through reading a word and then rewriting it using a different initial letter. Phonetic skills are learned, and reinforced through choral reading, reading in unison with the teacher, from a list of words with the identified phoneme. Fluency is addressed by identifying and reading keywords before reading a short passage. Finally, reading comprehension is achieved through the reading of three small passages and then matching them up with a picture.

In contrast, the OG approach focuses on a multisensory method. Phonemic awareness is practiced through sound only; visual letters are not involved. With this in mind, the delivery is done through exploration of images and sound manipulation games. Phonetics skills are explored through inquiry. Words are read to the student who then must determine the new sound along with where it is found in the word with respect to syllables and vowel sounds. After discovery, the phoneme concept is practiced through games and activities. Spelling exercises are completed
on a tactile surface such as sand, whiteboards, carpets, and cloth. Reading fluency and comprehension is practiced through games and reading one-on-one with the teacher.

The scope and sequence of the two reading interventions also differ. The scope and sequence for the introduction of new material and concepts do not appear to be explicit in the *Phonics for Reading* (2011) program. It seems as though phonograms and sight words are taught in a predictable sequence; however, concepts such as spelling rules may be introduced without explanation. For example, lesson 14 (Archer et al., 2011, p. 56) identifies the new sound through a list of six words; *egg, off, hill, miss mitt,* and *jazz.* The double consonants are underlined with the understanding that the doubling of these consonants is significant. The spelling rule, *Buzz off Miss Pill,* reviews the concept of doubling the *z, f, s* or *l* when these letters occur after a short vowel, in a one syllable word. Since the words *egg* and *mitt* appear in this lesson, it is confusing. Does the lesson focus on the spelling concept or merely a few words where the consonant is doubled? What new sound is the lesson focusing on?

Conversely, the OG approach is explicit and sequential. As defined by Joshi et al. (2002), “[t]he Orton-Gillingham approach is a multisensory method of teaching language-related skills that focus on the use of sounds, syllables, words, sentences, and written discourse. Instruction is explicit, systematic, cumulative, direct, and sequential" (p. 231). Every lesson introduces phonemes and sight words along with spelling concept, and syllabication based on a scope and sequence derived from research. The origin and research behind the OG approach will be explained in Chapter 2.

Finally, there is a difference between the oral reading component within each lesson when comparing the two separate interventions. As mentioned, in the *Phonics for Reading* (2011) program the students follow the teacher’s instruction as they work through a booklet together.
There are words, phrases and three sentence paragraphs to read. The paragraphs are short (20-25 words), but not adjusted to the individual abilities of each student. It is a pre-set lesson. By comparison, the final segment of an OG lesson is oral reading, one-on-one with the practitioner. The passage read will be 150 to 300 words in length. The level of complexity will be based on the specific needs and abilities of each student; thus, each student may read a different passage.

As stated by Allington, McCuiston, and Billen (2015), “[s]tudents who read at their instructional level outperformed students who read texts above their reading level” (p. 496).

Retention of Students

At the school that I work, I have found that parents are often informed about the value of seeking out an Orton-Gillingham tutor for their child who is struggling to read. I have sat in meetings with parents, learning support staff and the principal, whereby it was explained to the parents that their child's reading skills are not progressing and that they should pursue outside support, specifically someone who can work with their child using the OG approach. As well, I have read psychoeducational reports from the school psychologist suggesting that the student receive instruction by an OG practitioner. Since our school does not offer instruction using the OG approach, parents are pressed to look to the private sector. There is a private school in our catchment that does offer intensive reading intervention using the OG approach. It is expensive; however, we still loose families to this school. There is another option for families, and that is private tutoring with an OG practitioner or at the REACH Orton-Gillingham Learning Centre Inc. Apart from the fact that these two options are costly, it is difficult to find an OG practitioner and the wait list to get into the REACH Orton-Gillingham Learning Centre Inc. is expansive. It is disheartening to think that an effective reading intervention is inaccessible to so many families.
due to lack of availability and high cost. I hope that the data from my study will help support the integration of the OG approach into our learning support services.

**Statement of the Problem**

My work as a grade 5 teacher as well as an Orton-Gillingham tutor has shown me the value of explicit, direct instruction of phonological awareness, phonetics, sight words, spelling concepts, syllabication, and morphology. When students reach grade 4, and they are unable to read at grade level text, they will fall behind their peers. As a teacher, I not only see the impact on academics but also on the student’s self-esteem and confidence. Through the Response to Intervention model, we see how early assessment along with early intervention is fundamental to the success of students who are struggling to read. As defined by Orton (retrieved from Ritchey & Goeke, 2006) many reading difficulties and disabilities are characterized by a problem with phonological processing. Torgesen (2004) expands on the definition of reading difficulties as having a weakness in phonological skills. The foundations of the OG approach is to address phonological and phonemic awareness to develop fluency and thus reading comprehension. The OG approach is unique from other reading interventions as it is direct, explicit, sequential and multisensory. Students are engaged in the learning process through hands-on games and activities. Unfortunately, the OG approach is not offered in the public school where I work. Students who would benefit from an OG practitioner are faced with two expensive options, private school or private tutor. Apart from the high cost, finding an OG practitioner entails sitting on a waitlist. Research indicates that the OG approach is an effective reading intervention, especially when implemented in the primary years (Allison, 2016; Armistead & Armistead, 2006; Berg & Stegelman, 2003; Torgesen, 2004; Wanzek et al., 2010; Zylstra, 2013). Through
my action research study, I hope to grow as a professional and to provide strategies for my colleagues in learning support services.

**Overview of the Study**

My study follows an action research methodology. The intention was to monitor the implementation of an intensive reading intervention on a small group of grade 2 students over nine weeks. The reading intervention was based on the OG approach. The overall intent of this intervention was to teach phonological awareness, phonetics, sight word identification, syllabication, morphology and spelling concepts through a direct, sequential, multisensory method. Each lesson was designed to meet the needs of the students. Engagement and participation were purposely fulfilled through various games and multisensory activities. We met as a group, biweekly, in the learning support room. The first half of every lesson consisted of review of newly learned and known material followed by the teaching of a new concept and practice of this new material. Students were eager to participate in the lessons and earnest to read one-on-one with me. Student progress was evaluated through a DORF (2011) baseline reading assessment done in the fall followed by a subsequent DORF (2011) reading assessment done upon completion of the nine week intervention.

**Conclusion**

As a society, we communicate through print. Being able to read for knowledge and understanding is a necessity. A student, in the intermediate grades, who is unable to read at grade level will quickly fall behind his peers. Our school system in British Columbia adopted a Response to Intervention framework which relies on early assessment and early intervention using evidence-based programs. Research indicates that learning to read occurs in the primary grades whereby the focus is on phonological and phonemic awareness. Once the task of
decoding becomes less arduous, fluency will develop, and studies suggest that an increase in fluency leads to an increase in comprehension. The OG approach is an effective reading intervention. The purpose of my research is to use the OG approach on a small group of grade 2 students who have been assessed at below benchmark for reading fluency, accuracy and comprehension. I will explore how the OG approach will impact the students’ ability to decode words in the text and thus increase their reading fluency.

This paper first introduces my study and how it pertains to my pedagogy. In Chapter 2, I will review the literature on the development of reading as well as literature on reading difficulties and dyslexia. Following this, I will outline the methodology of my study in Chapter 3. Chapter 4 will present the results and specific findings followed by a discussion, recommendations and conclusion in Chapter 5.
Chapter 2

Literature Review

The acquisition and development of reading skills has been studied extensively throughout history. In turn, theories and interventions which focus on the struggling reader is a topic of great interest amongst theorists, researchers, teachers, and specialists. The literature review in this chapter will outline the various theories that have historically guided reading instruction along with assessment, and intervention in the British Columbia educational system. Literature, defining learning disabilities, dyslexia and specific learning disabilities, will be presented through the lens of the Diagnostic and Statistical Manual of Mental Disorders, edition 5 (DSM-5), the Learning Disabilities Association of America, the British Columbia Ministry of Education, and the International Dyslexia Association. The review will also examine the “Five Pillars of Reading” as recommended by the National Reading Panel (2000) along with the principles of the Orton-Gillingham (OG) approach and how this approach connects to the Five Pillars. Finally, a review of the current research in the OG approach will be analyzed followed by a brief discussion in the gaps in this research.

Historical Theories of Reading Development

It has frequently been suggested that knowing the history allows us to learn from the past. Having an understanding of the theories that once guided our reading programs, assessments and interventions inevitably help us to evaluate and build on this knowledge. Barry (2008) examines the history of reading by first evaluating the early years of Colonialism whereby reading materials were Christian, Protestant, and Puritan. These first readers contained the alphabet, a set of syllables called a syllabary and the Lord’s Prayer. The focus was to name the letters of the alphabet, then spell and recite each word in the printed prayer. It was not until 1820 that
American educators looked at the work of Rousseau (1979) and Pestalozzi (1986) who stressed the importance of meaning in the material (Barry, 2008). It was not until early 1840 that “phonic” readers began to emphasize the sounds that each letter made as opposed to just their name. “In 1844, Isaac Pitman devised and published the first “phonetic” alphabet to aid spelling. By the 1880’s educators like Colonel Francis Parker and George Farnham began to promote the importance of meaning and understanding in beginning reading instruction” (Barry, 2008, p. 41).

With the influence of scientific investigation, silent reading was emphasized as studies showed that children understood text more easily when they read it silently as opposed to aloud. By the late 1930’s the “Dick and Jane” series was widely used. Although phonics played a role, the series took a predominantly whole-word approach to reading (Barry, 2008). At this time there was much debate over the two methods: phonics and the meaning-emphasis. In 1967, Chall, a respected Harvard researcher, conducted a systematic analysis of reading research and programs. As cited in Barry (2008) “Chall concluded that a code-emphasis method produced better readers not only in terms of the mechanical aspects of literacy… but also in terms of the ultimate goals of reading instruction- comprehension and possibly even speed of reading” (p.43). Furthermore, Chall “concluded that language, good teaching, and appropriately-leveled instructional materials were important factors in developing successful readers. The stirrings of ‘balance’ were evident” (Barry, 2008, p. 44).

A significant change occurred in the mid 60’s when basal readers became widely used along with an overemphasis on drill and workbooks. Barry (2008) identified that in reaction to this method, the concept of “whole language” was introduced by Yetta and Ken Goodman. In What’s Whole in Whole Language? Goodman (2005), states that:
Many school traditions seem to have hindered language development. How? Primarily by breaking whole (natural) language up into bite-size, but abstract little pieces… We took apart the language and postponed its natural purpose - the communication of meaning…Encourage them to read for information, to cope with the print that surrounds them everywhere, to enjoy a good story. (p.1)

According to Barry (2008), whole language became the method of instruction in schools across California until 1992 when California’s students scored near the bottom among 50 states on both the 1992 and 1994 National Assessment of Educational Progress exams.

In response to the decline in reading skills, the US Congress stepped in to establish a National Reading Panel to review research in reading instruction. The panel reviewed and analyzed more than 100,000 studies, resulting in the report *Teaching Children to Read: Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction* (2000). Armistead and Armistead (2004) summarized the conclusions of this report. The authors (2004) identified that an effective reading program should include instruction in phonemic awareness, phonics, fluency, vocabulary and text comprehension. Furthermore, beginning readers need explicit instruction and practice that leads to an appreciation that the words that we speak are made up of smaller units of sounds. Finally, beginning readers need to learn ‘sight’ recognition of frequent words, and independent reading, including reading aloud. In other words, a balanced approach to reading.

The balanced approach to reading is once again recognized. Chall (1983) stated that a balanced approach was necessary for the development of successful readers. Through her research, Chall (1983) identified and then summarized the stages of reading development into six stages.
**Stage 0.** Prereading: Birth to age 6. Children are listening for the nature of the words such as rhyme, segmentation, blending, and syllables. Specifically, phonological awareness;

**Stage 1.** Initial Reading and Decoding Stage: Grades 1 to 2. At this stage, children learn that letters are associated with sound and spoken words, also known as phonetics;

**Stage 2.** Confirmation, Fluency, Ungluing from Print: Grades 2 to 3. Essentially, reading and consolidating what was learned in stage 1. This stage is frequently referred to as “learning to read”;

**Stage 3.** Reading for Learning the New: Grade 4 and up. The child is now at the stage whereby they are now “reading to learn”;

**Stage 4.** Multiple Viewpoints: High School. At this stage, reading involves looking at more than one point of view. The child is reading and dealing with layers of facts and concept;

**Stage 5.** Construction and Reconstruction – A World View: College. The student is now at the stage where reading is done to further knowledge and understanding whereby critical thinking is required.

Chall’s stages of reading development suggest a scope and sequence whereby skills mastered at one stage will then allow the reader to progress to the next stage. Conversely, the inability for an individual to master specific skills will have an impact, possibly severe impact, on the child’s ability to progress through the stages (Chall, 1983). Such progression is the cornerstone of research by the National Reading Panel (2000). As stated by Armistead and Armistead (2004) the teaching of the specific reading skills needs to be explicit and systematic. Particularly, instruction must be controlled and follow a logical order from simple to complex.
Current practices in the teaching of reading advocate that instruction should be direct and follow a scope and sequence. There is also a balance between structured lessons on phonics and related concepts along with the integration of reading for enjoyment. Through buddy reading, readers’ theatre, and quiet reading time, to name a few, the joy of reading is fostered through various reading activities that provide engagement and challenge for all readers.

**Learning Disabilities, Dyslexia and Specific Learning Disabilities**

The British Columbia Ministry of Education, uses the Diagnostic and Statistical Manual of Mental Disorders, published by the American Psychiatric Association, to provide definitions, categories, and guidelines when revising the Special Education Policy Manual (2016). In May 2013, the American Psychiatric Association published the DSM-5 which adjusted the way learning disabilities were categorized. Subsequently, the British Columbia (BC) Ministry of Education published a revised version of the Special Education Policy Manual in April 2016. How the present DSM-5 is translated and used to guide the educational system brings much debate amongst scholars, associations, and organizations in the field of reading disabilities. A brief explanation of the definitions of learning disabilities, dyslexia, and specific learning disorder from the various stakeholders may help to clarify the argument.

**Learning disabilities.** As determined by the Learning Disabilities Association of America (2018):

Learning disabilities are neurologically-based processing problems. These processing problems can interfere with learning basic skills such as reading, writing, and math. They can also interfere with higher level skills such as organization, time planning, abstract reasoning, long or short-term memory, and attention. (p.1)

Learning disabilities refers to a number of disorders that may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. (p. 47)

**Dyslexia.** The International Dyslexia Association (2018) defines dyslexia as a specific type of learning disability:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of adequate classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge. (p. 1)

**Specific learning disability.** The American Psychological Association defines Specific Learning Disability (SLD) in the DSM-5 (Tannock, 2014, retrieved from the International Dyslexia Association):

DSM-5 considers SLD to be a type of Neurodevelopmental Disorder that impedes the ability to learn or use specific academic skills, reading, writing, or arithmetic, which are the foundation for other academic learning. The learning difficulties are ‘unexpected’ in those other aspects of development seem to be fine. (p. 1)

Furthermore, the American Psychological Association (2019) states that:
An estimated 5 to 15 percent of school-age children struggle with a learning disability. An estimated 80 percent of those with learning disorders have a reading disorder in particular (commonly referred to as dyslexia) ... Other specific skills that may be impacted include the ability to put thoughts into written words, spelling, reading comprehension, math calculation, and math problem-solving. (p. 1)

Under the overarching category of SLD, there are specifiers to characterize the specific manifestations of learning difficulties. For example, SLD with impairment in reading has three specifiers: inaccurate or slow/effortful word reading, difficulty understanding the meaning of what is read and dyslexia (Hill & King, 2014, p. 13).

Although the term dyslexia is cited in the American Psychological Association definition of SLD (2019), in many educational systems the term is not used. This is where the argument lies. In many educational systems today, the term dyslexia is not used. Either the term is too specific, or the diagnosis of dyslexia may lead to extra costs in the educational system. “The term dyslexia, although still used by some, is generally felt to be too narrow and SLD is often used to describe these learning difficulties. This is because the learning difficulties are usually broader than just reading difficulties” (Government of Western Australia, 2014, p. 1). Furthermore, Snowling and Hulme (2012), argue that the term, dyslexia may be too specific as some impairments in reading comprehension may be rooted in a language disorder. Snowling and Hulme (2012) argue that “recognizing the continuities between reading and language disorders has important implications for assessment and treatment… high rates of comorbidity between reading disorders and other seemingly disparate disorders (including ADHD and motor disorders) raises important challenges for understanding these disorders” (p. 593). In addition, Cutting, Hart and Hart (2013) state that not all reading disabilities are dyslexia. The authors
define the reading comprehension impairment identified by Snowling and Hulme (2012) as Specific Reading Comprehension Deficits or S-RCD, in which “a child reads successfully but does not sufficiently comprehend the meaning of the words…By the time the problem is recognized, often closer to third or fourth grade, the disorder is disrupting their learning process” (p. 1).

In the United States, the expense is the deterrent. “Under the Individuals with Disabilities Education Act (IDEA), schools are required to provide special services to help [dyslexic] students ... However, those special services can be expensive, and many schools don't have the resources to provide these accommodations” (Emanuel, 2016, p. 1). In the BC educational system, specifically the West Vancouver School District, the term dyslexia is often avoided as it is considered to be too specific and that assessments may not be comprehensive enough to define dyslexia. It is understood that the move from identifying a specific learning disorder is due to the limitation of the assessments. A psychological test may determine poor reading skills, but it remains unclear whether these cognitive abnormalities are the cause, correlate or consequence of the learning difficulties (Fiedorowicz, Craig, Phillips, Price, & Bullivan, 2015).

Advocacy groups are concerned with the inconsistent use of the term dyslexia. “[T]his omission will (a) perpetuate lack of recognition and understanding of dyslexia and (b) contribute to delays in diagnosis and treatment” (Cowen & Dakin, 2012, p. 1). From the view of organizations and advocacy groups, awareness, understanding and early diagnosis are essential to implement necessary interventions specific to students with dyslexia. The debate will continue as organizations, associations and scholars try to agree on a definition that identifies the challenges and needs of the student. Nevertheless, there is a consensus among all that early assessment is essential to determine and follow the path of learning that is essential for each
child. In this study, the terms dyslexia and reading disability will be used in conjunction, as the students participating in the study may be identified as having poor reading skills, but a psychological assessment may not have been implemented as of yet. However, some of the students may have a diagnosis of Dyslexia depending on where and when their psychoeducational assessment was done.

**Five Pillars of Reading**

As previously stated, the National Reading Panel (2000) found that a combination of techniques was effective in teaching children to read (National Institute of Health, 2017):

- **Phonemic awareness.** The knowledge that spoken words can be broken apart into smaller segments of sound known as phonemes;
- **Phonics.** The understanding that letters of the alphabet represent phonemes and that these sounds are blended to form written words;
- **Fluency.** The ability to recognize words readily, read with greater speed, accuracy, and expression, and to better understand what is read;
- **Guided oral reading.** Reading out loud while getting guidance and feedback from the teacher. This combination of practice and immediate feedback promotes reading fluency;
- **Teaching vocabulary words.** Teaching new words, either as they appear in the text or by introducing new words separately;
- **Reading comprehension strategies.** Techniques for helping individuals to understand what they read.

The National Institute for Literacy collated a teacher’s guidebook titled *Put Reading First* (Armbruster, Lehr, Osborn, Alder, & Noonis, 2006) which was based on the recommendations made by the National Reading Panel. The guidebook identifies the specific reading techniques as
the “Five Pillars of Reading Instruction” which consist of phonemic awareness, phonics, fluency, vocabulary, and comprehension. The Five Pillars of Reading Instruction were incorporated into the No Child Left Behind Act and the Reading First initiative as essential components of effective reading instruction. Today, these same five pillars provide the structure for all reading programs in North America.

The Orton-Gillingham Approach

As defined by Joshi et al., (2002), “the Orton-Gillingham Approach is a multisensory method of teaching language-related skills that focus on the use of sounds, syllables, words, sentences, and written discourse. Instruction is explicit, systematic, cumulative, direct, and sequential” (p. 231).

As stated by Zylstra (2018) in her manual, the Orton-Gillingham classroom educator training manual, the OG approach was designed by Samuel T. Orton and Anna Gillingham in the 1930s. Dr. Samuel Torrey Orton was a pathologist, neuropathologist, neurologist, and psychiatrist. His attention was focused on reading failure and related language processing difficulties bringing together neuroscience along with principles of remediation. In 1925, Orton had identified the syndrome of dyslexia as an educational problem. He used the term strephosymbolia meaning word-blindness; a distinct and unexpected difficulty in learning to read. Through his investigation of the reading and spelling processes, Orton believed that the best way for a student to retain the necessary components of language would be to teach it through multiple modalities, specifically, visual, auditory, kinesthetic and tactile modalities.

In 1931 Samuel Orton and Anna Gillingham began their professional collaboration. Dr. Orton designed the Language Research Project funded by the Rockefeller Foundation and became acquainted with Anna Gillingham. Anna Gillingham was a psychologist at New York's
Ethical Cultural School and had read Orton's theories of cerebral dominance and strephosymbolia, and of his interest in both diagnosis and instruction. Encouraged by Orton, she compiled and published instructional materials in the 1930s which provided the foundation for student instruction and teacher training. This form of instruction became known as the Orton-Gillingham Approach (Henry, 1998).

Gillingham and her colleague, Bessie Stillman insisted that children with specific reading difficulties could not read by a sight word method. Instead, they believed that it was more effective to teach reading through the constant use of associations in how a letter or word looks, sounds, and what it feels like when being written or spoken. In their manuals, Gillingham and Stillman direct the teacher to assist the children linking numerous visual, auditory, and kinesthetic-tactile senses portrayed by their "language triangle" (Henry, 1998). In 1960, Anna Gillingham and Bessie Stillman developed these instructional materials into a curriculum manual titled *Remedial Training for Children with Specific Disability in Reading, Spelling, and Penmanship* (Ritchey & Goeke, 2006).

The OG approach includes the Five Pillars of Reading Education in any given individual session as well as overall scope and sequence of learning. The core elements of all OG sessions consists of phonemic awareness, phonics, fluency, vocabulary, and comprehension.

**Phonemic awareness.** A baseline assessment is always done on intake. The student’s knowledge of segmentation, manipulation, syllabication and general phonological awareness is assessed. Any gaps will be explicitly taught in the next lessons and reviewed to ensure mastery.

**Phonics.** Phonograms are taught in a scope and sequence to ensure that gaps in the child’s knowledge are addressed. In any OG lesson, phonemic awareness is reinforced through
exercises in decoding of isolated sounds, blending, word reading, encoding of isolated sounds, and the spelling of phonetic and sight words.

**Fluency.** Fluency is taught and reinforced throughout an OG lesson. Success in phonemic awareness builds success in fluency as less time is spent decoding the words in a passage. Fluency is applied in the reading component of the lesson whereby the student will read a passage out loud while feedback is provided.

**Vocabulary.** Morphology is an essential element in an OG approach. Students learn that words are made up of units meaning; prefix, suffix, root, and word. Knowledge of these units and their meaning will help to define the word.

**Comprehension.** All lessons end in a reading passage. Strategies for comprehension are reinforced while feedback throughout the reading is provided for correction and support.

The OG approach continues to be used worldwide, with some countries and states advocating for its implementation in a whole classroom setting as well as implementing it as Tier 2, small group intervention.

As stated by Zylstra (2018), several professional accrediting bodies certify OG practitioners. Most of these bodies are in North America with specific OG accreditation being offered in Canada through the Canadian Academy of Therapeutic Tutors, Orton-Gillingham (CATT, OG) and in the United States through the Academy of Orton-Gillingham Practitioners and Educators (AOGPE). Zylstra (2018) emphasizes that “Orton-Gillingham is always an approach. As an approach, it is never a programmed set of lessons, a pre-designed scope, and sequence that all students will follow, nor a computer-based program that all students will be assigned” (p. 2). Zylstra (2018) acknowledges that “the approach to teaching is that the well-informed OG Practitioner will always determine the scope and sequence, the materials, the
resources and the components of the lesson plan commensurate the needs of the learners they are teaching” (p. 2).

The multisensory, explicit, systematic, cumulative, direct, and sequential approach to teaching language-related skills is what differentiates the OG from other reading programs. Many programs may have components of the OG approach, but on their own, would not be as comprehensive. For example, *Read Naturally* has a strong emphasis on fluency, vocabulary, and comprehension while phonemic awareness and phonics are omitted. *Phonics for Reading* is a program that encompasses the Five Pillars of Reading Education; however, it is not multisensory, and it is a set program that provides minimal opportunity for the teacher to adjust the scope and sequence to meet the needs of the students. Purchasing a reading program for a school is logical as it is better to have a standardized program in your school as opposed to nothing. That said, investing the funds into OG training for the teachers will have long-term benefits and will allow the well-informed OG teacher to determine the scope and sequence and materials needed to best support the students.

**Current Research**

The National Reading Panel report (2000), recommended that a comprehensive reading program should encompass instruction in phonemic awareness, phonics, fluency, vocabulary, and reading comprehension. Scholars today continue to provide research which supports these findings.

Children’s phonemic awareness ability is the strongest language-related predictor of success in reading and correlates highly with reading ability through grade 12 (De Groot, Van den Bos, Van der Meulen, & Minnaert, 2015; Tracey, 2015). According to Berg and Stegelman (2003), phonetics, as the “ability to process the phonological components of language is a critical
precursor to understanding letter-sound relationships” (p. 48) is a major element of effective literacy instruction. Berg and Stegelman (2003) state that “[a]ll students need explicit, systematic instruction in phonics and exposure to rich literature, both fiction and nonfiction” (Berg & Stegelman, 2003, p. 48). Oh, Haager and Windmeuller (2007) performed a longitudinal study to predict reading success on English-language learners in kindergarten and grade 1. Their results indicated that by grade 1, the ability to decode simple words and knowledge in phonetics was a strong predictor of reading success.

Fluency is the third pillar of an effective reading program. Slavin et al. (2011) evaluated 97 studies comparing strategies for helping struggling readers ages 5 through 10. It was noted in their findings that “[a]cross all categories of programs, almost all successful programs have a strong emphasis on phonics” (Slavin et al., 2011, p.19). Kuhn (2004) rationalizes that “one reason for its importance is that fluent readers no longer have to intentionally decode the majority of words they encounter in the text. Instead, they can recognize words automatically and accurately” (p. 338). In a study by Kuhn (2004), repeated reading and wide-reading approaches were evaluated for the usefulness in improving fluency. Findings suggest that there are two primary ways in which fluency plays a part in the students’ reading development. The “first involves the development of automatic word recognition, while the second deals with prosody, or those elements of fluency that allow oral reading to sound like spoken language” (Kuhn, 2004, p. 338).

Evidence suggests that children are more likely to learn to read and to learn content when the text can be read with a high level of accuracy (Allington et al., 2015; Fountas & Pinnell, 1999; Kuhn et al., 2006). “Text that can be read with 95% or greater accuracy is directly, and in some studies causally, related to improved reading achievement” (Allington et al., 2015, p. 498).
Development in the proficiency of decoding allows the student to recognize words quickly thus improving fluency. If the student is challenged by difficult text whereby decoding is arduous, and thus accuracy is reduced, the growth in reading development is compromised. “Higher levels of oral reading accuracy during reading lessons produced larger gains in reading development” (Allington et al., 2015, p. 494).

Vocabulary and comprehension are the final two pillars of reading instruction. Apthorp (2006) studied the effects of a supplemental vocabulary program in third-grade reading. Findings suggested that a student’s vocabulary can best be strengthened through an explanation of the word, frequent encounters with new words as well as activities that encouraged deep and active processing of the words. Furthermore, Apthorp (2006) indicated that a substantial vocabulary has a positive correlation with reading comprehension. Additionally, students who can comprehend the text are more inclined to read more as the process of reading is less tasking than for that of a struggling reader (Apthorp, 2006).

It can be concluded that a sound reading program must include a sequential approach with explicit and direct teaching in the areas of phonemic awareness, phonics, fluency, vocabulary, and comprehension. Additionally, the multisensory approach, is another element of the OG approach that can be supported by research.

Multisensory instruction has long been promoted as effective in supporting students with learning difficulties in reading. Birsh (2011) explains that “Multisensory Structured Language (MSL) programs incorporate task analysis and explicit instruction, but include auditory, visual, and kinesthetic/tactile sensory input to increase engagement and aid memory of different components of literacy, from letter identification to phonological memory and processing” (p. 41). Joshi et al. (2002) used a quasi-experimental design to examine the efficacy of the
multisensory teaching approach to improve reading skills at the first-grade level in an inner-city school. The control group received the district-approved Houghton-Mifflin Basal Reading Program, and the daily lessons were taught strictly according to the scope and sequence of the instruction manual. The experimental group received Language Basics: Elementary which incorporated the Orton-Gillingham-based Alphabetic Phonics Method. Teachers received 42 hours of training in this multisensory technique. The results of this study showed that grade 1 children taught with the multisensory teaching approach based on the Orton-Gillingham principles performed better on tests of phonological awareness, decoding, and reading comprehension than the control groups (Joshi et al. 2002).

Finally, Magpuri-Lavell, Paige, Williams, Akins, and Cameron (2014) examined the impact of the Simultaneous Multisensory Institute for Language Arts (SMILA) approach on the reading proficiency of 39 students between the ages of 7-11 participating in a summer reading program. The SMILA instructional approach was used to teach specific sound-symbol relationships, accuracy and automaticity of word reading, and oral reading fluency. The structure of the daily SMILA approach provided direct and explicit instruction in phonemic awareness, phonetic concepts, vocabulary development reading comprehension along with practice in spelling and oral reading. Magpuri-Lavell et al. (2014) suggested that the “findings of the study were consistent with the converging evidence that an understanding of the alphabetic principle, phonological awareness and phonics are important and necessary skills for developing fluent reader.” (p.369). Furthermore, “when readers better understand the sound, letter, and spelling patterns of words, reading fluency increases” (Magpuri-Lavell et al., 2014, p. 369). Analyses of pre- and post-testing of the Word Identification and Spelling Test (WIST) and One-minute reading fluency test scores indicated that students receiving this instructional approach
demonstrated significant gains in word reading, sound-symbol knowledge, and oral reading fluency (Magpuri-Lavell et al., 2014).

**Gaps in the Research**

Ritchey and Goeke (2006) reviewed the effectiveness of Orton-Gillingham based reading instruction programs. They identified 12 studies that included elementary students, adolescents, and college students. The outcome of this review showed mixed results. Of the 12 studies, five concluded the Orton-Gillingham Method was more effective than the control interventions for all measured outcome. Four studies reported that the Orton-Gillingham instruction showed gains in at least one (but not all) measured results when compared to other interventions, two stated that the Orton-Gillingham instruction was less effective than the other ten instruction, and one, reported no differences.

In light of these results, Ritchey and Goeke (2006) review was limited due to the small number of existing studies that employed experimental or quasi-experimental designs. The authors stated that “[g]iven the popularity of OG and OG-based instructional methodologies, we were surprised that only a dozen studies met the inclusion criteria of our review… liberal inclusion criterion was used to allow for examination of the majority of studies” (p. 181). Other limitations of the study were small sample size and studies published in the 1970’s and 1980’s when the technology for statistical analysis was not readily available, and there were less stringent standards for educational research. The conclusion of this review revealed that the research in this area was currently insufficient in both the number of studies and the quality of the research conducted. The results at this point were mixed, and there were several limitations to this study. In a recent blog on the Neuro-Development of Words- NOW (2015) the author stated that by labeling “Orton-Gillingham” as an approach allows for trained practitioners to use
their knowledge and skills to adapt the lesson to the individual child. Many reading programs have adopted the OG approach, however, not in the same way; thus, reason dictates that not all programs will be equally effective. With this in mind, Neuro-Development of Words- NOW (2015, May 15) maintains that:

There is no way for scientific research to truly validate the effectiveness of “Orton-Gillingham” as an approach. Each program has to be tested independently, and an independent peer review must verify the results. A specific program can be tested. A philosophical approach is far more difficult to test. (p.1)

Neuro-Development of Words- NOW (2015, June 25) continues by asserting that:

A program that is neuro-developmental and that also follows the elements of an Orton-Gillingham approach would teach almost all children. Research done in the 1990’s showed that 97% of kindergarten children who showed early signs of weak language skills were prevented from experiencing severe reading difficulties when given neuro-developmental, multisensory, systematic, structured instruction. (p. 1)

The Orton-Gillingham practitioner is grounded on a neuro-developmental and multisensory approach that is sequential and cumulative while focusing on explicit and direct instruction. “Applying this cognitive approach in an OG helps students to understand not only what they are learning in relationship to reading and writing, but why and how they are learning” (Zylstra, 2018, p. 2).

The literature review briefly examined the historical theories of reading development from the early years of Colonialism to current practice. In today’s classrooms we see a balance between direct instruction on phonological and phonemic awareness with the integration of reading a variety of text for pleasure. The DSM-5 has established Specific Learning Disabilities
(SLD) into three areas of limitation: reading, writing and mathematics with specifiers in each area. As much as the term dyslexia is recognized in the DSM-5, some school systems choose not to use the term as it may be considered too narrow. Advocacy groups believe that use of the term dyslexia will contribute to understanding along with early diagnosis and treatment.

The National Reading Panel (2000) identified the Five Pillars of Reading as phonological awareness, phonics, fluency, vocabulary and comprehension as the foundation to a strong reading program. Through a direct, sequential, multisensory method, the OG approach incorporates the Five Pillars of Reading. Studies have identified the effectiveness of the OG approach; however, more research is necessary to fill the gaps in group, Tier 2 reading interventions.
Chapter 3
Method

The purpose of this study was to explore the efficacy of an intensive reading intervention on a small group of grade 2 students who were identified as having difficulties with reading. The reading intervention used the Orton-Gillingham approach which is most commonly used in a one-on-one setting. For this purpose, I used action research to explore the question:

How effective is the OG approach in supporting the reading skills of struggling primary students within a small group, Tier 2 context?

The research on the OG approach indicates that it is an effective reading intervention for struggling readers (Allison, 2016; Armistead & Armistead, 2006; Berg & Stegelman, (2003); Torgesen, 2004; Wanzek et al., 2010; Zylstra, 2013). In my practice as an OG practitioner, the approach is always used in a one-on-one setting. In developing the question for my research, the intention was for me to grow as an OG practitioner as well as possibly acquire new methods that could be used in a Tier 2 small group setting within the school system. This chapter will first review the value of using an action research method. Next, the process of data collection along with the selection of participants will be discussed. In addition, the details of the intervention will be explained followed by a synopsis of how the data will be analyzed. The chapter will conclude with a discussion on the potential application of the results as well as the limitations of this study.

Research Design

The method of research used for this study was action research. Action research is defined as “commitment to reflection, knowledge generation, participative and collaborative working and practice transformation” (McNiff, 2016, p. 23). McNiff (2016) notes that:
[i]t means identifying values-based reasons for action, gathering and interpreting data to show how values were justified and fulfilled, and the generation of theory. This goes beyond good professional practice, which emphasizes the action but does not always question the reasons and motives. (p. 24)

McNiff (2016) states that action research includes a commitment to educational improvement with the understanding that educational practice can always grow and develop. As professional educators, there should not be a ceiling. Secondly, McNiff (2016) suggests that action research will address questions centered around “I” and that the responsibility lies within the researcher. To clarify, questions explored in action research often look at how the researcher “I” can improve on “my” teaching practice. Furthermore, the research is reflective whereby the researcher must review and question the process and thus adjust as necessary. Finally, McNiff (2016) maintains that action research must be informed, committed and intentional. Teaching is a collaborative profession whereby knowledge is shared and critiqued by our colleagues which is essential for growth and development.

While researchers have identified various cycles and stages of action research, they all fall within a similar framework. Cohen, Manion, and Morrison (2013) characterized eight stages in the action research framework (Figure 1) whereby, reflection sits within the centre of the cycle. Throughout my research project, it was imperative that I reflected on every lesson. Subsequent lessons were always built with the consideration of previous lessons. I constantly had to analyze if the concepts were understood or, did they need to be reviewed in a different format? In addition, I reflected on the delivery of each lesson. Did I provide an adequate, self-directed game for the students so that I could adequately work one-on-one with another student, as well, did I rush through a concept or provide enough practice? Should I reconfigure the set up in the room?
Action research is based on reflection and how we can improve our practice.

Figure 1. Stages of Action Research. The cycle illustrates the eight stages of action research as identified by Cohen et al. (2013, p. 355).

My project and subsequent thesis paper models the eight stages of action research illustrated by Cohen et al. (2013). Chapter 1 of my thesis identified the problem along with personal context to the issue. Chapter 2, the literature review, concentrated on reviewing and choosing an intervention. Through research, I was able to address the development of reading interventions and then focus on the research supporting the OG approach. In this chapter, I will discuss the planning and implementation of the intervention followed by an explanation of the monitoring and recording of the results. The final two stages of the action research framework will be described in chapter 4 – results, and chapter 5 - discussion.

Participants

The planning for my action research project started with the identification of potential participants. In the fall, the learning support team assessed all grade 2 students for their reading abilities. The team used the Dynamic Indicator for Basic Early Literature Skills Oral Reading
Fluency (DIBELS Oral Reading Fluency or DORF) (2011) (Appendix A) assessment tool. The names of five students, who fell well below benchmark, were then provided to me. The next step was to inform the parents. A signed, recruitment letter (Appendix B) was placed in a sealed envelope and sent home with the five identified students. It was requested in the letter that if the parents were interested in having their child participate in the study they were to contact me at the given email address to set up a meeting. Every parent did make contact and a meeting was set up for us to review the details of the study. During this meeting the Parent Consent (Appendix C) along with the Student Assent (Appendix D) were given to the parents to review and take home for further thought. Confidentiality was a potential concern for the families; thus, it was clearly communicated to the parents that their child’s name would not appear in my paper. Each child was given a code letter A, B, C, D or E. It was clarified that to participate in the study, both the parent consent and student assent were to be signed and returned to their classroom teacher by a specific date. However, it was also made clear to the parents that participation in the study was voluntary and that they could remove their child from the project at any time.

Setting and Time Frame

The first stage of my study was to seek permission from the district. In June of 2018, I sat down with my principal to discuss my research and to review the logistics of pulling students from class to work with me. She was incredibly supportive and suggested multiple possibilities as to how I could find the opportunities to work with the students. In early September, I sent a letter to the Director of Instruction for my school district, (Appendix E) to obtain permission to conduct my study in the school setting. Upon approval, I then spoke to the learning support team at my school to discuss the research and potential participants.
In the first week of October, the learning support team completed the DORF (2011) reading assessment on the students and provided me with the names of five potential participants for my study. In the second week of October, I sent out the parent information letters, followed by meetings with the parents. After gathering all of the parent consents and student assents I was able to start our first session on October 24, 2018. We continued to meet every week until December 17, 2018, a total of 18 sessions over nine weeks.

I met with the students every Monday and Wednesday afternoon from 1:15 to 2:00. After the students’ lunch break, I would stand in the hallway, outside their classroom, to remind the teachers that I had their students. I would then collect the students as they entered the building and make our way downstairs to the learning support room. In our school setting, many students are pulled from the classroom to attend learning support groups or English as a second language lessons. It was apparent to their peers that the five students were heading off for a reading group, but on most occasions, the peers would ask if they could join. Stigmatization of attending a support group did not appear to be a concern.

During the first two weeks of intervention we reviewed and learned new phonemes; however, the focus of the lesson was phonological awareness (PA). From my baseline assessments, it was apparent that many of the students were weak in the PA which is the foundation of reading. Phonological awareness focuses on the identification and manipulation of sounds only; letters are not involved. Once this skill was mastered, I continued to review the skill throughout the various lessons; however, the focus was now on the identification and understanding of new phonograms. During week four, I introduced the concept of open and closed syllables. Syllabication encourages the student to break words into syllables as opposed to phonemes. An example of this strategy is explained in the procedure.
From week five to week eight, I continued to introduce new phonogram along with spelling concepts. Material that was learned in weeks one to four were reviewed as needed.

In the final week, week nine, I worked with each student to complete their post-reading assessment using the DORF (2011) and sight word deck. Once the results were compiled, I sent an email to each family. In the email, I briefly outlined the skills and strategies that were taught during the nine-week reading intervention. I then provided them with a summary on their child’s growth along with the recommendation that they should continue to read with their child daily. Finally, I clarified that the study was over and that their classroom teacher would monitor their child's progress. I concluded my email by thanking them for the opportunity to work with their child and that my study would be published in spring of 2019.

In all, the intervention was a total of 13.5 hours over a nine week period.

**Intervention**

The primary goal of my intervention was first to strengthen the students’ ability to decode and secondly to increase the number of sight words that could be recognized. By focusing on these two components of reading, my hope was to develop the students’ fluency.

Upon review of the students' initial DORF (2011) reading assessments, I discovered that their accuracy was lower, and in some cases substantially lower than the benchmark. In many cases, the students were guessing incorrectly. It appeared that they did not have adequate decoding strategies to decipher the words. I also noted that the number of common sight words that the students could read in the grade 2 level reading passage was minimal. Decoding strategies along with the ability to read common sight words is a critical component of fluency. If the student is struggling to sound out multiple words, then naturally their speed along with understanding will decrease. Thus, as stated, my goal was to develop strong decoding skills with
the students while reinforcing fluency through one-on-one readings of passages that were set at the students’ reading ability.

**Assessment tools.** A key element of action research is to obtain baseline data relevant to the issue, provide intervention and then reassess the participants using the same assessment tools to see if the intervention worked. I was able to obtain the results of the students DIBELS Oral Reading Fluency (2011) assessment which was administered by the learning support team. This provided baseline data on the correct words per minutes (CWPM) as well as the students’ accuracy when reading grade 2 level text. Next, I completed an Informal Phonological Awareness Assessment (Zylstra, 2013) (Appendix F) as well as a Phonetic Word Diagnostic Reading (Zylstra, 2014) (Appendix G) and a Phonetic Word Diagnostic Spelling (Zylstra, 2014) (Appendix H) on each student. These tools provided a comprehensive assessment for phonological and phonemic awareness, along with the spelling of phonetic and non-phonetic words. I also reassessed the students’ reading fluency by having them read from grade level text using a passage from EasyCBM (2015) (Appendix I and Appendix J). Researchers at the University of Oregon designed EasyCBM (2015) as an integral part of the Response to Intervention model. EasyCBM (2015) provides curriculum-based benchmarks and progress monitoring measures to assess student progress. The purpose of this test was to find the students’ grade level of text that he could successfully read as I intended to continue to use passages from EasyCBM (2015) during one-on-one reading to monitor their reading.

Throughout the nine-week intervention, the OG Assessment Tool was updated as phonograms and concepts were successfully mastered.

**Procedure.** Each lesson had the same format as consistency and routine is essential when working with young students who can be easily distracted. Based on the students’ previous
knowledge I devised a weekly plan using the OG: Basic Remedial Lesson Plan (Appendix K) adapted from Zylstra’s (2014) OG: Basic Remedial Lesson Plan. A lesson would always start with activities for review followed by the introduction of a new concept or phoneme. As the students practiced the new material through games, I would take one student at a time to read with me.

In the first two weeks of the intervention, each lesson would start with activities related to phonological awareness (PA). One engaging activity that the students played was bingo. The bingo card had images only. I would then ask the students to “take the word dig; change the middle sound for /o/; what is the new word?” The students would then put a chip on the image of the dog.

Once PA was mastered, we did not need to focus on this skill, occasional review was all that was necessary. At this point, I revised the lessons to focus on decoding skills through phonemic awareness activities — a key strategy in reading decoding of words. The student must be able to recognize the phoneme within the word to decode accurately. Once decoding is achieved, fluency will follow. With this in mind, each lesson started with a drill in phoneme to sound association utilizing a deck of cards. As I flashed the cards, the students called out the sounds. If an error was made, all of the students were instructed to trace the letters of the phoneme onto a tactile surface while calling out the letters and providing a keyword; this would be done multiple times for reinforcement. For example, the students would trace and repeat “ck says /k/ as in a black truck.”

Next, the students practiced blending of the sounds using phonogram that they recently learned. The blending activity was a good segway into decoding phonetic words. Words, using phonograms that were known to the students, were written on the whiteboard. Initially, in the
nine-week intervention, I would underline phonograms that were recently learned to provide easy identification — for example, bridge, where ‘dge’ says /j/. As students developed an understanding of syllables, I then moved away from the identification of phonemes and focused on breaking the word into syllables. Students were asked to indicate what type of syllables were in the word; open or closed. From there the students would be able to identify the vowel sound within each syllable. A closed syllable has a short vowel sound while the vowel sound in an open syllable is long.

Sight words were reviewed through a drill deck. As new words were discovered in the reading passages, they were added to the deck of cards. Approximately, 14% of the English language are non-phonetic words otherwise known as sight words (Moats & Tolman, 2009). However, many of these sight words are frequently found in primary level reading passages, for example, ‘where’, ‘there,’ and ‘any’. Thus, it was essential to increase the students’ repertoire of sight words to support their reading.

Encoding of isolated sounds and then spelling of phonetic and sight words came next. Correction of errors was addressed immediately by providing eliciting questions to help the student discover the mistake. Again, remediation was reinforced through repetition of the letter names and keyword, while the tracing the letters on a tactile surface.

The subsequent component of the lesson was to teach a new skill or concept based on a specific scope and sequence. This study used the scope and sequence for the introduction of skills in phonological awareness (Appendix L) as well as the learning of phonics, concepts, and sight words (Appendix M) from Zylstra’s training manual titled Orton-Gillingham Therapeutic Practitioner Training (2014). These scope and sequences are structured, sequential guides to
teach phonics, spelling rules, syllabication, and non-phonetic words. They were developed by Orton-Gillingham Therapeutic Tutors using the Orton-Gillingham approach.

New concepts and skills always started with an opportunity for the students to explore and discover the concept, followed by group practice, individual overlearning and then documentation of the learned concept. Individual overlearning was done through games and played at two to three different stations. While the students rotated through stations, I read with individual students using grade 1 and grade 2 reading passages from EasyCBM (2015). During the reading session, I would place the reading on the table with a guided reading strip set over the words. This strip was made from solid white cardstock that allowed the student to view only one sentence at a time while blocking out the passage from above and below. The strip was moved down the page by the student or me, depending on the students’ preference that day. The primary purpose of this reading tool was to improve the students’ fluency by keeping their eyes focused on the line they were reading and filtering out surrounding distractions on the page. *See-N-Read Reading Tool* (2018) is a commercially marketed version of the reading strip that I made. Based on their research, the tool “improves fluency, comprehension, reading rate and accuracy by directly supporting the visual brain pathways (cortical brain center) to gain control of the ‘field of vision’ and to smoothly and efficiently track left to right” (Smith, 2018, p. 2).

I found that the students preferred to use the guided reading strip when reading passages to me. Their attention was focused, and they did not jump to words on the following sentence. I would always give them a choice; however, they always requested the strip and stated “The page was too busy without the strip.”

Although comprehension was not formally assessed and measured amongst the students, discussion of the story would always occur during the reading of the EasyCBM (2015) passage.
Either the student would stop to ask questions or comment on the story, or I would ask a few questions upon the conclusion of the passage. This was an informal process as I wanted to ensure that the students understood that reading was a process of making meaning from the text rather than an exercise in correctly pronouncing words.

On occasion, homework was given whereby the students were asked to find words at home that followed a specific spelling, phonogram or morpheme concept. A weekly email was sent home to the parents to summarize what was covered during the week as well as outline the homework assignment.

Throughout the lessons and one-on-one time, I frequently asked the students how they were doing and what they thought of their reading skills. It was not a structured interview simply casual conversation; however, I would always reflect on the students’ comments as it helped me to revise lessons and restructure activities.

Finally, during the last week of the nine-week intervention, I worked with each student to assess their reading skills using the DORF (2011) assessment tool. I also collated the number of sight words that each student could read through the use of the drill deck.

**Data Collection and Analysis**

The data that was collected and analyzed in this study was quantitative. The DORF (2011) assessment tool was used pre and post-intervention to obtain data on CWPM as well as accuracy. I also compiled pre and post data on the number of sight words read correctly. Since the focus of the OG lessons was to strengthen decoding skills with the purpose of improving fluency, the DORF (2011) assessment tool along with sight words read correctly; both provided valuable information.
Throughout the intervention qualitative data was used as formative assessment. “Possibly the most powerful form of data, however, is in those instances when you are able to comment critically on your own processes of learning, when you demonstrate reflexive critique, and show how and why you have deliberately changed your thinking, informed by your values” (McNiff & Whitehead, 2010, p. 145). As an OG practitioner, I was able to utilize formative assessment during lessons in order to create subsequent lessons. If concepts were not mastered in one lesson, then following lessons would consist of extra games and practice to reinforce the learning. Furthermore, during the one-on-one read out loud I was able to informally assess the student’s ability or frustration level on a given passage. If I felt that the grade level was too challenging or too easy for the student, then I would adjust accordingly and provide a new grade level at the next lesson. Finally, an assessment of the students’ perception of lessons, challenges along with student engagement was ongoing. Through observation and conversation, I could conclude whether the activity was engaging or too challenging. I could also discern whether the student was gaining confidence or have feelings of doubt concerning their reading abilities. Again, this was valuable information that helped me to create and revise my lessons throughout the intervention.

Upon completion of the study, the qualitative data along with benchmarks were graphed for each student. Comparing the student’s growth alongside the expected trajectory of growth for a grade 2 student provided a strong visual. It becomes more evident that the student’s progress was not due to the passage of time alone.

**Benefits and Limitations**

**Benefits.** Action research projects are often used in education as it helps educators be more effective at what they care most about—their teaching and the development of their
students. Seeing students grow is probably the greatest joy educators can experience. As the practitioner in my action research project, I agree that to see my participants successfully read a passage that was once considered too difficult for them was extremely rewarding. Action research also helps educators to quickly and efficiently develop practical solutions to issues that are relevant to them. Educators who engage in action research inevitably find it to be an empowering experience (Cohen et al., 2013). The benefits of using action research in education are numerous. As stated by Hughes (2016), the benefits of action research is that it is grounded in “lived reality,” it helps us understand complex inter-relationships, it facilitates the exploration of the unexpected and unusual and finally, it can show the processes involved in formulating new theories.

Action research is grounded in ‘lived reality.’ The nature of the participants will influence the implementation and results of the study. Hughes (2016) refers to action research as retaining more of the “noise” of real life. We cannot exclude unwanted variables implicit in children. 'Noise' is the nature of a real classroom whereby teachers inherently learn to adapt and adjust to the ‘noise.’ However, it is often through this adaptation and adjustment that the researchers will develop an understanding of complex inter-relationships.

Furthermore, the multiple variables within this realistic environment help to facilitate the exploration of the unexpected and unusual. Finally, an action research methodology invites the discovery of new theories. As a researcher, we approach the study with a question. We plan and implement the intervention based on previous research and theories. However, it is not until we are amid this unpredictable environment that we can fully explore, learn and build new theories.
Limitations. There are inherent limitations to using an action research methodology for this study as it is difficult to replicate, the time frame to implement the study was short, and the results cannot be generalized.

To begin with, replication of the study would be difficult since the intervention was an approach. A program is standardized whereby the teacher is required to move through the lessons based on what the publisher has printed in the guide. There is still room for variability concerning teacher ability, but a standardized program is replicable as opposed to an approach that relies on the well-informed OG practitioner to determine the scope and sequence, the materials, the resources and the components of the lesson plan to meet the needs of the individual students.

Secondly, the time frame was a limiting factor. The study spanned over nine-weeks with only 18 lessons provided. Compared to most reading interventions, this is a short time frame for a reading intervention on students struggling to read. More time would have been beneficial.

Finally, the sample size in this study is only five students, and thus, the results cannot be generalized to the overall population of any given geographic area.

Significance

Over the length of this study, I have developed my ability as an OG practitioner. Through reflection and critical thinking, I have learned to assess my practice and revise my intervention to fit the needs of my students better. The study has provided me with the opportunity to grow as a professional and to trial the OG approach in a Tier 2 setting. “Action research is about learning to improve learning to inform new thinking and new practices” (Cohen et al., 2013, p. 347). Furthermore, Cohen et al. (2013) state that “action research should contribute not only to practice but to a theory of education and teaching which is accessible to other teachers, making
educational practice more reflective” (p. 345). Knowledge gained from the study will be shared amongst my colleagues at the school and district with the intention of introducing an alternative Tier 2 reading intervention for students who struggle to read.

Action research methodology in education is about developing as a teacher and finding out what works best for your students. It is empowering and rewarding. Implementation can often bring out the unexpected as the research is about working with the unpredictability of students. My study involves five grade 2 students who struggle to read. We will work together over nine-weeks to explore the effectiveness of using the OG approach to improve the students’ reading skills. The results are dependent on the nature of the participants along with the knowledge and intuition of the OG practitioner. As with most action research, the results cannot be generalized, and it will be quite difficult to replicate this study. Chapter 4 will review the results of the project. The overall findings will be presented first, followed by specific themes and then outcomes for the individual students.
Chapter 4

Findings and Results

Data collected for this study was quantitative and qualitative. Through the use of pre and post reading assessments using the DORF (2011) assessment tool along with tabulating the number of sight words read, I was able to collate quantitative data to help me determine the efficacy of my OG reading intervention. Qualitative data was collected through personal observations as well as unstructured conversations with the students, parents, and teachers. Chapter 4 will first provide an overview of the findings. Next, I will outline and demonstrate specific themes and issues that were apparent in the results. The individual findings from each student will be explained followed by a discussion of my observations of the group as a whole. The chapter will end with the statements and dialogue from students and parents that were made during the course of the intervention.

Overview of Findings

Upon completion of the nine-week reading intervention, assessments indicated that the students improved in the number of words read correctly per minute (CWPM). Their accuracy also improved indicating that the words were decoded accurately as opposed to guessing or skipping over the word. Finally, the number of sight words that the students could read by the end of the intervention, also increased. Overall, the students stated that they enjoyed the reading group sessions. Parents and teachers also mentioned that they saw development with the students’ reading skills as well as the desire to read and write.

Specific Themes and Issues

An initial assessment for phonological awareness, phonics, and sight word (non-phonetic words), using the OG Assessment Tools: Primary Assessment Package (2013) was completed on
October 12, 2018. The results were compiled and charted on a scope and sequence table. To illustrate, if, during the initial assessment, the word or phoneme was known to the student, then the box was coloured in. If the word or phoneme was tested, but unknown to the student, the results were indicated with an ‘x’.

Grounded in the students’ OG assessment baseline data, I then developed the lessons following the scope and sequence for the teaching of phonological awareness, phonics, spelling rules, syllabication, and sight words as stated in Zylstra’s training manual (2014). Once all of the students mastered a skill, the specific month was written in the corresponding box.

Table 1

*Phonological Awareness Skills*

<table>
<thead>
<tr>
<th></th>
<th>Student A</th>
<th>Student B</th>
<th>Student C</th>
<th>Student D</th>
<th>Student E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WORD</strong> Segment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SYLLABLE</strong> Segment</td>
<td></td>
<td></td>
<td>Nov</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blend</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RHyme</strong> Detect</td>
<td></td>
<td></td>
<td>Nov</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Produce</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sound Detection</strong> Initial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phonemes</strong> Segment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td></td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
</tr>
<tr>
<td></td>
<td>Manipulate</td>
<td></td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
</tr>
</tbody>
</table>
Table 1 illustrates the scope and sequence of the development of phonological awareness skills. Upon initial assessment in October, student A successfully demonstrated all the skills except deletion of phonemes which was later mastered in November. Student B initially struggled with syllable segmentation and rhyme detection which was resolved in November. Finally, students C, D, and E were able to successfully demonstrate the skills on the scope and sequence apart from phoneme deletion and manipulation which again, were mastered in November.

Phonological awareness is the foundation of reading. It is essential that the student is capable of detecting and then manipulating sounds within a word prior to the application of phonemic awareness. Phonemic awareness is the connection of sound to symbol and symbol to sound. In the first two weeks of the intervention, I ensured that when designing my lessons, I focused on PA, specifically deletion and manipulation of phonemes. For example, one activity that I used for PA was a bingo game. Each student had a bingo card with various images in the boxes. I then asked the students to repeat after me. “Repeat after me, cup. Now switch the /u/ for /o/. What do we have? Cop. Put a marker on the picture of a cop”. By the beginning of November, all of the students had mastered the skills in manipulation and deletion of sounds. Since Student B was identified as struggling with rhyme detection and syllable segmentation, I embedded these skills in the review segment of my lesson making certain that the student was grasping the concept. As noted in the chart, student B mastered these two skills in November.

Table 2

*Phonics, Syllabication, and Spelling Rules*

<table>
<thead>
<tr>
<th>GRAPH-EME</th>
<th>PRON -OUNCE</th>
<th>STUDENT - A</th>
<th>STUDENT - B</th>
<th>STUDENT - C</th>
<th>STUDENT - D</th>
<th>STUDENT - E</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>apple</td>
<td>READ</td>
<td>SPELL</td>
<td>READ</td>
<td>SPELL</td>
<td>Oct</td>
</tr>
<tr>
<td>s</td>
<td>snake</td>
<td>READ</td>
<td>SPELL</td>
<td>READ</td>
<td>SPELL</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>mitten</td>
<td>READ</td>
<td>SPELL</td>
<td>READ</td>
<td>SPELL</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 demonstrates the scope and sequence for the learning of phonograms, syllabication and spelling rules. Phonemic awareness, along with the concepts associated with each phoneme, was the core of each lesson and provided the building blocks for decoding and encoding. Each lesson started with a quick drill through a deck of phonemes whereby the students were to call out the associated sound and concept related to each symbol. For example, a
card with ck was shown to the students. They would reply “/k/, found at the end of a word or syllable, after a short vowel sound.”

Initial assessment in October indicated that the students had varying levels of knowledge. However, they were able to catch up with their peers through regular review at the beginning of each lesson. For example, student C was not able to recognize and spell the short vowel sounds during the initial assessment; however, by the end of October, this skill was mastered. The review portion of every lesson was not only essential for practice, but it also proved to support those students who either missed a session due to illness or who merely needed relearning of a phoneme. As phonograms were mastered, the specific month was inputted into the chart. Naturally, some students learned the phoneme sooner than others; however, once I felt that all students had mastered the skill, then I charted the month.

Table 3

*Sight Words Read and Spelled*

<table>
<thead>
<tr>
<th>SIGHT WORD</th>
<th>STUDENT - A</th>
<th>STUDENT - B</th>
<th>STUDENT - C</th>
<th>STUDENT - D</th>
<th>STUDENT - E</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>READ</td>
<td>SPELL</td>
<td>READ</td>
<td>SPELL</td>
<td>READ</td>
</tr>
<tr>
<td>to</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>do</td>
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<tr>
<td>the</td>
<td></td>
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<td></td>
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<tr>
<td>was</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>you</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>one</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
</tr>
<tr>
<td>none</td>
<td>Dec</td>
<td>Dec</td>
<td>Dec</td>
<td>Dec</td>
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<tr>
<td>done</td>
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<tr>
<td>does</td>
<td>Dec</td>
<td>Dec</td>
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<td>Dec</td>
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<tr>
<td>gone</td>
<td>Dec</td>
<td>Dec</td>
<td>Dec</td>
<td>Dec</td>
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<td>Oct</td>
</tr>
<tr>
<td>are</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
</tr>
<tr>
<td>too</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
<td>Nov</td>
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<tr>
<td>any/many</td>
<td>Dec</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>put</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
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<tr>
<td>who</td>
<td>Dec</td>
<td></td>
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<td>full</td>
<td>Dec</td>
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<td>pull</td>
<td>Dec</td>
<td></td>
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<td>from</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
Table 3 indicates the scope and sequence of sight words that the students could read and spell. The spelling of new sight words was done through a structured multisensory lesson and reinforced weekly during the spelling segment of each lesson. I used a drill deck to support the identification and reading of sight words. Again, I flashed the words on cards while the students called them out. The collection of words in the deck came from the structured lessons as well as the reading passages that the students read with me while their peers participated in literacy stations. Reading passages were downloaded from EasyCBM (2015) at a grade 1 or grade 2 reading level. As the students read, I would often need to read out the sight words that were unknown to them. With repetition, students were able to identify sight words in the reading passages. The final total indicated in the chart clarifies how many sight words the student could identify in October and how many could be identified in the December assessment.
Table 4

*DIBELS Oral Reading Fluency (2011)*

<table>
<thead>
<tr>
<th></th>
<th>OCTOBER 12, 2018</th>
<th>DECEMBER 12, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CWPM</td>
<td>ERRORS</td>
</tr>
<tr>
<td>STUDENT A</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>STUDENT B</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>STUDENT C</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>STUDENT D</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td>STUDENT E</td>
<td>35</td>
<td>20</td>
</tr>
</tbody>
</table>

Table 4 tabulates the results from the DORF (2011) assessment done in October and repeated in December. The correct words read per minute (CWPM) increased for each student, errors made decreased, and thus accuracy increased. The increase in accuracy illustrates that the students were using newly learned decoding strategies. For example, in October, student E read a total of 55 words whereby 20 were incorrect. In December student E could read a total of 52 words which showed a decrease of two words read in the minute; however, the accuracy improved substantially. It appeared as though the student learned to decode words rather than guess or skip over.

During the one-on-one reading segment of each lesson, the students started off with a passage at grade level one from EasyCBM (2015). As each student became more fluent, they were moved up to grade level 2. As discussed earlier, I chose a passage that fit the students’ reading ability. This helped to build the students’ confidence as well as fluency.

**Individual Findings**

Growth and development in reading was calculated through assessments and observed by me. Each student progressed in diverse aspects of their reading ability.
Initially, student A read slowly, agonizing over the pronunciation of every word. As well, the student would frequently skip or guess at words in the passage. At the start of each reading session with me, he would ask, “How far do I have to go?” Spelling was also a challenge with b and d along with p and q, written in reverse. Student A picked up on concepts quickly and was able to apply this knowledge to his spelling and decoding. His recognition of sight words also improved. With the use of the reading guide strip, student A focused less on how long the passage was and began to decode the individual word with minimal guessing and improved accuracy. It appeared as though the student’s confidence and stamina improved. By the end of the nine-week session, he was asking if he could read to the bottom of the page as he wanted to find out what happened in the story.
Figure 3. Student B, results from the DORF (2011) reading assessments.

Student B was a student who could be distracted easily. During the initial individual reading sessions, it was noted that the student had good decoding skills; however, he would stop to browse down the page or look around the room. He would frequently skip lines or words. The reading guide strip proved to be helpful for this student even though distraction continued to be an issue if other people were in the room when he was reading.
Figure 4. Student C, results from the DORF (2011) reading assessments

Student C read with confidence in the initial assessment, and throughout the nine-week sessions. That said, initially when the student came upon a word that was challenging for her, she would randomly guess with no attempt to decode the phonogram. As time progressed, she learned to use her decoding skills to identify phonogram and sound out new words. Spelling was a challenge for this student whereby b and d along with p and q were written in reverse. As well, she struggled to sound out and access prior knowledge of known phonograms for the spelling of phonetic words. Review and repetition helped the student with her progress.

Figure 5. Student D, results from the DORF (2011) reading assessments

Student D was a confident reader throughout the study. She enjoyed reading and frequently asked to be the first to read one-on-one during the sessions. As her decoding skills developed along with practice and repetition, student D continued to grow as a reader with her fluency going from 29 words per minute to 41 words per minute and accuracy also improving.
Figure 6. Student E, results from the DORF (2011) reading assessments

Student E enjoyed the chance to read one-on-one during the sessions as he would frequently ask to read a second passage with me. Student E also benefited from the use of the reading guide strip as it allowed him to focus on one sentence and not rush ahead. A growth in decoding skills and strategies was evident for this student. He went from making 20 errors in a one-minute reading to only making six errors. Student E began to recognize newly learned phonograms and thus could now accurately sound out the word as opposed randomly guessing. His recognition of sight words also increased by December.

In isolation, the data demonstrates that the students all progressed in fluency, accuracy and number of sight words read. However, there was new insight when comparing the students’ growth to the growth of the average grade 2 student, also known as the benchmark.
Figure 7. Student A, CWPM and accuracy compared to benchmark

Figure 8. Student B, CWPM and accuracy compared to benchmark

Figure 9. Student C, CWPM and accuracy compared to benchmark
Figure 10. Student D, CWPM and accuracy compared to benchmark

Figure 11. Student E, CWPM and accuracy compared to benchmark

Figures 6 - 11 all illustrate the CWPM and accuracy from each student’s pre and post reading assessments compared to the average growth in reading abilities for a grade 2 student. From the graphs, it is evident that accuracy improved at a higher rate for those students in the reading intervention compared to the expected benchmark rate. For each student in the reading intervention, accuracy increased substantially whereas fluency increased marginally if not at all. Specifically, student A went from an accuracy of 48% in October to 71% in December. A grade 2 student at benchmark would achieve 90% accuracy in October and increase to 93% accuracy by December; a 3% increase. As much as student A is still not at benchmark, the rate of increase
was substantial which indicated a stronger understanding and use of decoding strategies. Student B increased by 10%. Student C was above the benchmark in October at 92%. By December she had increased by 4%, again higher than the benchmark. Student D had an increase in accuracy from 77% to 87% while student E had a sizeable increase of 25% going from 64% in October to 89% in December. It was apparent when reading with student E that he no longer skipped and guessed at words, but instead, used decoding strategies to read unknown words. As illustrated in the graphs accuracy did increase; however, for three of the participants, fluency continued to grow at the same rate as the benchmark, but two of the participants decreased in the rate. From my observations during the one-on-one reading sessions, it was apparent that the students were slowing down to decode the words.

**Context and Related Findings**

Working with a group of five, grade 2 students, in the framework of a Tier 2 intervention can be challenging. The students were always excited to participate in the sessions; reading group meant games and activities that they enjoyed. However, at times the excitement would escalate especially if one or more student was easily distracted. On the occasion when one or more student was absent due to illness, the increase in focus amongst the students as well as the ability to complete tasks was noticeable.

Keeping students on task while I read one-on-one with one of their peers, was also a challenge. While the students waited for their turn to read with me, I had them participate in two different literacy stations. I found that most of the students did the best when working on an individual puzzle or word search as opposed to a game that required moving players across a board. Again, this would change based on the number of students present that day.
Finally, I was cognizant of the type of activities that I prepared for the practice of a new skill. The students enjoyed and could easily remain on task when the activity was a word puzzle, word search, and memory card game. Games that involved dice, a board game or self-control proved to be problematic which often led to multiple interruptions as I attempted to read with another student.

Over the nine-weeks of intervention, I learned to build games that would allow the student to focus on their individual work and thus set them up for success.

**Findings from Unstructured Conversations**

During the course of the nine-week intervention, I had the opportunity to work with each student to assess their reading skills and to casually ask them how they felt about their growth in their ability to read. Findings from my questions are as follows:

Teacher: *Did you like to read before we started the reading groups?*

Student A: *I hated it. I get too tired*

Student B: *Yep, I liked reading. I'm just a slow reader*

Student C: *My mom makes me read to her all the time. I like it when she reads to me.*

Student D: *Reading is hard. My mom makes me do it all the time, but I would rather not.*

Student E: *It's ok. I sit with my sister and she will read to my mom. Often my mom will read the page when it is my turn*

Often students who struggle with reading feel as though they are stupid. If they are unable to keep up with their peers, then, in their minds, there must be something wrong. As well, students who struggle with phonemic awareness agonize over decoding of the words. If they are not trying to decode, then they are often skipping over the word or randomly guessing. Reading
for these students can be exhausting. Naturally, these students will turn to avoidance of reading which will only set them back further.

Teacher: *What do you think about reading now?*

Student A: *It’s still hard, but it makes more sense now. I can read more stuff which is kinda cool.*

Student B: *I like that white paper on the words. It’s not so busy when I read now.*

Student C: *It’s still hard because now my mom makes me read more. I have to read longer all the time now.*

Student D: *It’s so easy.*

Student E: *I can read stuff that my sister can read now. We share books and now I am just as smart as her.*

When the students were answering the above question, their eyes would light up along with a broad grin. I could visibly see the pride on their faces. The students spoke with confidence and satisfaction that they had achieved something.

Teacher: *Do you think that you are getting better at reading? In what way?*

Student A: *Yeah, I think so. I know more words now and now I can read faster. I didn’t know what the stories were saying before, but now I can understand more.*

Student A: *Hey, I can read to the bottom of the page now. Before I could only do half of the page.*

Student B: *My mom and dad both said that I am getting to be a stronger reader.*

Student C: *Yah, my mom says that I am a good reader now. I think that she is right.*

Student D: *Yep, yep, yep. I can get lots of words now.*

Student E: *It feels good now.*
Again, the students spoke with confidence. They could tell me that they were improving with their reading and for them, the bench was that they could read more words, read further down the page and that it just felt right.

Teacher: *What do you do when you come across a word that you don’t know?*

Student A: *I sound it out or look at you.*

Student B: *You use your fingers to hide the word and then you ask me if it is an open or closed syllable.*

Student C: *I just sound it out or break it up*

Student D: *I sound it out*

Student E: *I don’t know. Well, I guess you get me to read the word in parts. You stick your finger on the word so that I can only see part of it.*

In answer to this question, most students commented on the strategies that I was teaching for decoding of words. Specifically, sounding out known phonograms and breaking the word into syllables.

Some feedback from the students was not elicited but would freely come up in conversation with the students, parents, and teachers. Statements from the students were always positive, showing an increase in confidence with their reading as well as overall enjoyment in the program. When passing in the hallway, one student asked me, “When do I get to see you again? It’s so much fun.” Other comments made by the students that revealed their engagement in the sessions were, “Can I read again with you?”, “I love playing the games.” “Yeah, a word search, my favorite.” An increase in confidence was apparent when some students commented on their ability to read. For example, one student said, “Can I read the whole page today?”, “My mom says I am a better reader. I think I am too.” Alternatively, when attempting to decode a word one
student declared, “I can do this now, don’t help me.” Finally, student A, who often found reading to be extremely arduous stated after reading a full page, “Wow, that wasn’t too bad. I did the whole page!”

Feedback from parents was always appreciated. One parent emailed me to state that her son was enjoying the reading sessions and that he did not want to miss any of them. Another parent commented that her son was now trying to sound out everything in sight, from the cereal box to words in the newspaper. She also mentioned that she and her husband both saw growth in their son’s ability to read. Lastly, one parent told me that her son loves the reading program especially when he gets to read with the teacher.

Finally, the students’ teachers commented on the progress that they were seeing. One teacher mentioned that she saw a difference in the student’s ability to focus on writing. “He is more focused in class, and I notice it most with his writing. He is getting words down on paper now”. The other grade 2 teacher stated that her students love to go to the reading group and that she sees the work transfer into the classroom.

Overall, the students in the OG small group reading intervention stated that they looked forward to our group sessions, that they loved the games and that they had fun working with their friends. Conversations with the teachers indicated that they saw improvement amongst each student who participated in the study. They stated that they could see the students using decoding strategies to read unknown words and that their spelling was improving as well. One teacher even pointed out that her student was able to stay on task as he was now able to understand and participate in the work that was given to him. Comments from the parents acknowledged that they were able to see a noticeable improvement in their child’s ability to read and that there was a new eagerness to read words within their environment. Finally, the data from the pre and post
reading assessments identified that there was a marked improvement in accuracy amongst all of the students and that their increase in accuracy was at a faster rate than the benchmark for grade 2 students. Fluency rate, as seen as CWPM, for all five students in the reading intervention, did not increase any faster than the benchmark. In chapter 5 I will discuss my study through the lens of the eight stages of action research as identified by Cohen et al. (2011). Based on my reflections throughout the study, recommendations and areas for further research will be reviewed under the seventh stage of the cycle. Finally, I will conclude with a discussion on how my research has impacted my teaching.
Chapter 5

Discussion and Conclusion

In Chapter 1, I introduced the context of my study by stating the problem. As a grade 5 teacher, it is frustrating to see students reach grade 4 and beyond with the inability to read at grade level. In a recent article in the New York Times, Hanford (2018) stated that “[a]ccording to the National Assessment of Educational Progress, more than six in 10 fourth graders aren’t proficient readers…A third of kids can’t read at a basic level” (p. 1). Hanford continues by declaring that “studies have shown over and over that, virtually all kids can learn to read- if they’re taught with the approaches that use what scientists have discovered about how the brain does the work of reading…They need explicit, systematic phonics instruction” (p. 1). Explicit, direct, systematic instruction is the philosophy behind the OG approach, and as an OG practitioner, I have witnessed the value and efficacy of this approach.

Chapter 2 provided a summary of the research as it related to the development of reading acquisition as well as the history and strategies of the OG approach. Furthermore, I discussed the concept of implementing the OG approach in a small group setting as opposed to the one-on-one method that is typically used. An individual reading intervention can be costly to a public system; thus, my goal for this study was to demonstrate how this highly effective intervention could be implemented in a more financially economical group setting.

Chapter 3 reviewed my action research project by discussing the research design, intervention as well as the limitations and significance of the project. The specific objectives for the intervention were clarified. I intended first to assess the individual student's reading strategies to develop purposeful lesson plans moving forward. We started by filling in some gaps by teaching and reviewing skills in phonological awareness. I then turned the focus to phonemic
awareness to help the students develop strong decoding skills. From my initial assessments, it was apparent that the students had a weak symbol to sound recognition; thus, when reading, they relied on guessing the words in a passage. Their accuracy was poor; therefore, I knew that I had to concentrate my reading intervention on building robust decoding strategies. Specifically, lessons centred on phonemes and sight word identification along with syllabication and spelling concepts.

Chapter 4 presented the findings from the nine-week reading intervention. In summary, each student improved in their accuracy when reading a grade level passage. Their improvement was at a higher rate than the benchmark for a grade 2 student. Fluency measured correct words read per minute and it increased at the same rate as the benchmark for their grade level except for two of the five students. For students A and B, the fluency rate did increase, but not at the same pace as the benchmark for a grade 2 student.

Using the framework of the eight stages of action research, as identified by Cohen et al. (2011), chapter 5 will review the findings from my question: *How effective is the OG approach in supporting the reading skills of struggling primary students within a small group, Tier 2 context?* Under the headings of stage 1 and 2, of the eight stages, I will discuss the process in developing my study question. Why I chose the OG approach as the reading intervention in my study will be reviewed in stage 3. In stage 4, I will discuss the criteria used to determine success. Under stage 5 heading, I will examine the variables within the study that had an impact on the results; specifically, group size, number of lessons per week and duration of the intervention. Observations, reflections and student comments will be addressed in stage 6. Stage 7 will discuss the limitations and benefits of the study along with recommendations. Finally, under stage 8, I will analyze how well this intervention solved the problem, by summarizing the findings and
then commenting on my post-study intervention. Chapter 5 will conclude with a discussion on what implications this study had on my teaching followed by suggestions for further research.

**Eight stages of action research**

Cohen et al. (2011), suggest that action research can be broken down into eight stages that progress in a cyclic design (See Figure 1). The study starts with identifying a problem, then devising an intervention based on previous theories found in the literature. As we implement the intervention, we continue to reflect on our practice along with the needs of the students. Unexpected events or diversions may occur due to the nature of working with students. Adaptations and adjustments are made which inevitably enlighten us to new understandings and theories. Thus, we are led back to the beginning of the cycle whereby additional questions may arise. Action research is cyclic with reflection at the center of our continuum. Our goal is to improve our practice and to discover the best methods to support the needs of our students.

Through the cycle of question, implement, reflect, revise and then question once again, the intention is to reach a point of best practice in teaching. “The aims of any action research project or program are to bring about practical improvement, innovation, change or development of social practice, and the practitioner’s better understanding of their practices” (Cohen et al., 2013, p. 345). Cohen et al.’s (2013) begin with identifying the problem.

**Stage 1: Problem identification.** As an OG practitioner, I appreciate the value of an intensive reading intervention that focuses on a direct, sequential, multi-sensory approach to developing reading skills specific to phonological and phonemic awareness. As previously stated, research indicates that the OG approach is an effective reading intervention, especially when implemented in the primary years (Allison, 2016; Armistead & Armistead, 2006; Berg & Stegelman, 2003; Torgesen, 2004; Wanzek et al., 2010; Zylstra, 2013). Today, the OG
approach is most commonly used in a one-on-one setting which can be expensive and possibly unattainable in a public school system. Parents seeking OG support for their child are left with the option of finding a private tutor or switching to a private school. In order to retain students and address the needs of our struggling readers, an intensive, evidence-based intervention that directly teaches phonological and phonemic awareness is essential. More importantly, research (Berg & Stegelman, 2003; Denton et al., 2011; Oh et al., 2007; Vaughn, Denton, & Fletcher, 2010; Vaughn & Waznek, 2014) suggests that the intervention needs to be implemented in the early years in order to be the most effective and to prevent the decline in academics as seen in the intermediate school years (Torgensen, 2004). Thus, the focus of my study was to implement the OG approach as an intensive reading intervention for a small group of grade 2 students.

**Stage 2: Possible intervention.** What Works Clearing House (2019), a database monitored by the Institute of Education Science within the US Department of Education, identifies evidence-based educational programs and products. Multiple interventions can help young students to read; however, they are packaged programs that may not address the specific needs of the individual students. For example, at the school where I work, the learning support department uses the Phonics for Reading (2011) program. As much as this program is supported by evidence-based research, it is a set program that is unable to adapt and adjust to the needs of the individual students. The students are guided, by the teacher, through the booklets as a one group. If a student has gaps in his knowledge or delays in understanding, there is little opportunity to catch up. The OG approach, on the other hand, has a different style of delivery that focuses on direct and sequential teaching of reading skills — adapting and progressing at the pace of the individual students is central to the OG approach. Vaughn and Waznek (2014) suggested that students with reading disabilities are not making progress in reading at the same rate as students
without disabilities, and that reading instruction for students with reading disabilities is comprised of excessive amounts of low-level tasks. Using an intensive, individualized approach which focuses on direct and sequential teaching is fundamental for students who struggle to read.

\textbf{Stage 3: Decision on particular intervention.} An essential element to the OG approach is that the practitioner is guided by the needs and development of the individual student which is why this approach is most often seen in a one-on-one setting. My objective for exploring this action research project was to see if the same benefits from an individual OG reading intervention could be mirrored in a small group scenario. As discussed, the ‘noise’ in a group setting is quite different from the ‘noise’ commonly discovered when working with an individual student. My recommendations on group size will address this concern. However, through my research, I had confidence in applying the OG approach as a Tier 2 reading intervention for the group of five participants.

\textbf{Stage 4: Plan intervention with success criteria.} Using the DORF (2011) reading assessment tool, I did pre and post assessments on the five students and compared their results to benchmark levels for grade 2. The success of the intervention would be evident in the students exhibiting a faster rate of development compared to their grade 2 peers who do not have reading difficulties. “If students with below-grade-level performance are to catch up with normally developing students, their rate of growth must be accelerated; simply learning at an average rate will only maintain the deficit students” (Vaughn et al., 2010, p. 433). In essence, the Tier 2 intervention must be intensive enough for the student to progress at a faster rate than the average student which was a vital criterion for monitoring the success of my study.

The grade 2, DORF (2011) reading assessment provided data on reading fluency, accuracy as well as comprehension. Based on the initial evaluation, I chose to focus the data collection on
accuracy and fluency alone. For a student who could only read 10 words per minute on initial assessment, rating this student on comprehension was a moot point as the child had little opportunity to appreciate the story. During the nine-week intervention, comprehension was not neglected, yet the process was informal. As the students read a passage, questions and conversation about the text evolved to confirm that the students understood what had been read. Developing robust decoding strategies to improve accuracy and thus fluency was the goal of our lessons; however, through informal conversation, I monitored comprehension while allowing the students to appreciate the overall purpose and enjoyment of reading.

**Stage 5: Implement the intervention.** Using an action research methodology is frequently used in education as it helps us to explore new practices and theories in a realistic setting. Through the implementation of my OG reading intervention, I was able to realize the inter-relationships of the students and the intervention. As well, it was set in the unpredictable environment of ‘lived reality’ as opposed to a controlled lab thus encouraging me to revise my intervention as it evolved. Finally, I was able to explore and adapt to the unexpected while formulating new understandings and theories. However, there were limitations to using action research methodology in my study.

**Understanding of inter-relationships.** My study helped me to appreciate the complex inter-relationship between direct, systematic and sequential instruction in phonics and its impact on accuracy when reading. When constructing my question for the project, I assumed that my participants would exhibit weak decoding skills that just needed review and practice. However, when I reviewed the individual results from the initial DORF (2011) assessments, I was surprised at the inadequate level of accuracy that these students were reading at. Hanford (2018) discussed the method of whole language whereby “[y]ou’ll hear teachers telling kids to guess at
words they don’t know based on context and pictures rather than systematically teaching children how to decode” (p. 1). My first observation, when reading with my students, was that they would guess at unknown words rather than attempt to decode. It was not that their decoding strategies were weak, it was a matter of not using any strategies for decoding. As the nine-week reading intervention progressed, I observed, when students were reading, that they were starting to slow down in order to decode and thus decipher the reading passage. Results from the post-DORF (2011) assessment indicated that accuracy increased substantially for each participant.

**Grounded in lived reality.** The second benefit that I found in using an action research methodology was that it was grounded in ‘lived reality. The students in my project were eager to participate in the group sessions. Through observations, I began to develop a better understanding of individual personalities. It was apparent that certain students did not work well in partner groups due to their competitive nature. As well, games that required concentration or steps proved to be very difficult for some students and inevitably the game would end with pieces all over the ground. Finally, when working through the drill deck of phonograms, it was evident which students were eager to please as demonstrated by their shouting out of the answer, while others were distracted by their environment. With each lesson, I learned to adapt and adjust based on the temperament of the students on any given day. Lessons were always planned to meet the diverse needs of individual students.

**Exploration of the unexpected and unusual.** Considering I had been an OG practitioner for a few years, I still found revelation in the unexpected and unusual. In a traditional OG lesson, students learn to identify and encode new sight words through explicit teaching using a multisensory technique. Learned words then went into the sight word deck to be reviewed each lesson. What I discovered was that the EasyCBM (2015) contained multiple sight words that
were unknown to the students which I had not directly taught at that point, this was an unexpected finding for me. When reading with the students, I realized that unless they could identify a larger repertoire of sight words, then their fluency would be negatively impacted. Thus, I introduced multiple sight words each week whereby the expectation was to only identify the word as opposed to spelling it as well. Secondly, in previous years of tutoring, I believed that knowledge of the six different syllables was a more advanced concept. However, after introducing closed and open syllables to the participants, I discovered that they could easily break up an unknown word into syllables and then understand the vowel sound within each syllable. Syllabication proved to be a useful decoding strategy which I found to be unusual for this age group.

*Formulate new theories.* During the process of my intervention, it became apparent to me that working with five students was challenging. Not only did the various personalities lead to distractions in the lessons, but I also found it difficult to address the needs of individual students. Through continual reflection, I concluded that a smaller group size was necessary. I also determined that one lesson in a group setting would be an efficient use of time; however, the second lesson of the week would best be delivered in a one-on-one setting. The private lesson would allow time for addressing the individual needs of the students; reinforcement, correction, and practice could be specific to each student. From the ongoing reflections, I revised and implemented my intervention as noted in the extension of my project.

An action research project set in the classroom can have skewed results due to the multiple variables that exist in this setting. Due to the nature of the participants as well as the implementation of the reading intervention, this action research project had limitations. The results cannot be generalized nor can the study be replicated.
**Cannot be generalized.** The parameters within my study cannot claim to be typical. I have no way of knowing if the sample population in my research is similar or different from other populations in schools across the district or beyond. Therefore, results from this study cannot be generalized.

**Difficult to replicate.** It could be suggested that the outcomes of this study were highly dependent on the individual responsible for implementing the reading intervention. Specifically, the reading intervention in my study relied on my ability as an OG practitioner as well as my ongoing judgement and intuition as a teacher. Lessons were designed, adjusted and adapted based on my observations and formative assessments. To replicate this study under the same conditions would be highly unlikely.

**Stage 6: Monitor and record implementation /effects.** Based on the DORF (2011) pre and post reading assessments, the data showed that each student improved in their accuracy at a rate faster than the average grade 2 student. On initial DORF (2011) reading assessment, many of the students guessed at words and struggled to find strategies to decipher a word; thus their accuracy was weak. However, the OG lessons applied throughout the intervention focused on developing the students’ skill in phonological and phonemic awareness. Through phoneme identification and concept rules, blending and spelling exercises, multi-sensory games, and activities and one-on-one reading, the students developed strong decoding skills. On post-DORF (2011) assessment, the students were now attempting to decode the word; they were no longer guessing or skipping over the word. At this point, fluency was increasing, but not at a faster rate than the benchmark. From my observations, it was evident that the students were slowing down to utilize their newly learned decoding strategies. In the nine-week intervention, these skills were
still new to the students thus the familiarity and ease in decoding that is associated with fluency had not been attained yet.

In conversation with the students, it was apparent that they were noticing their progress as a reader. Student A initially stated that reading was very hard and tiring for him and that he did not know what he was reading most of the time. On initial assessment, student A read 10 CWPM with an accuracy of 48% while on the post-assessment he read 17 CWPM with an accuracy of 71%. Although the numbers are still below the benchmark, they still show a substantial increase in rate. More importantly, when given time, student A now had the skills and stamina to read a passage of 300 words and understand its meaning. Student A was very aware of his growth as a reader and commented with pride in his achievement. Student B also talked about his progress in the reading group. He stated with high confidence that his mom and dad both thought that he was becoming a strong reader. Both student C and D remarked on how easy it was to read now and finally, student E stated that it “felt good now.” Student E was very proud of the fact that he was catching up to his sister in his ability to choose more difficult books.

Overall, the students all demonstrated an increase in pride and confidence as they progressed through the reading intervention.

**Stage 7: Review and evaluate intervention.** The implementation and overall success of the OG reading intervention was dependent on the group size, the number of lessons per week, as well as the duration of the intervention. Through ongoing reflection, I assessed the implementation of each area with the intention of providing recommendations for future work in the OG approach as a Tier 2 reading intervention.

**Group size.** Working with five, grade 2 students who were all below the benchmark for reading was, at times, challenging. The nature of the individual personalities had an impact on
the overall dynamics of the group. On many occasions, a few of the students would find it
difficult to remain on task and in their seat. Basic classroom management skills were effective;
however, the incidents were still disruptive. Consistently meeting the needs of all five students
was also tricky. For example, if a student made an error during a spelling exercise, I would
immediately use questions to solicit the concept and thus enable the student to self-correct.
However, in such situations, other students would be less patient as their peer was trying to
discover the concept. On many occasions, I was able to detract from unnecessary wait time by
providing bonus questions for the students who were waiting or by allowing the students to take
turns in answering questions. Group size is strongly related to both the effectiveness and
feasibility of interventions. A group of five students is more financially economical; however, I
believe that working with three students would be more effective in implementing a reading
intervention. Research suggests that “at least for primary-grade students, group sizes of 1:1 and
1:3 are associated with more significant outcomes than are larger groups” (Vaughn et al., 2010,
p. 444).

Number of lessons per week. According to Denton et al. (2011), the U.S. Department of
Education’s What Works Clearinghouse recommended that educators proved Tier 2 reading
intervention three to five times per week for 20 to 40 minutes in addition to regular classroom
reading instruction. I chose to work only twice a week with the participants in my study as this is
what is commonly seen in our learning support department at my school. Based on the budget
within my school district, we have two learning support teachers to service a community of just
under 500 students. The two teachers have an extensive caseload and thus, meeting with a small
group twice a week is how they manage to accommodate all of their students. For my study, I
met with the five students as a group, twice a week after lunch for 45 minutes each session.
Based on my observations, this proved to be sufficient. Material learned during Monday’s lesson was quickly recalled during the review on the Wednesday lesson. Another fundamental element of the OG approach is the review. For students who struggle to read, short term memory may play a factor; thus, a continual review of learned material is essential. Therefore, my recommendations would be to meet with the Tier 2 group twice a week.

**Duration of the intervention.** The study was implemented over nine-weeks for a total of 13.5 hours of intervention. As much as I saw growth in the participants reading development, I believe that nine-weeks is not enough time for a Tier 2 reading intervention. In a systematic research synthesis, Wanzek and Vaughn (2008), found that providing reading interventions in small groups for at least 100 sessions was generally associated with medium to large effects sizes. In addition, the authors stated that supplemental reading interventions were most commonly provided for 20 weeks or more. Denton et al. (2011) confirmed that “spacing the presentation and practice of items over time is more effective than presenting or practicing large amounts of content in fewer sessions for verbal learning tasks, an effect that is especially salient for the retention of learned information” (p. 208).

Cohen et al. (2011) illustrate that reflection is the core to the action research cycle, thus through ongoing reflection, I formulated a list of recommendations for future implementation of the OG approach as a reading intervention in a Tier 2 setting. To begin with, I would work with three students as opposed to five. The intervention would be provided two to three times a week, 30 to 40 minutes each visit. One session would be held in a group setting while the subsequent lesson would be one-on-one. Finally, I would recommend that the duration of the intervention would be over 20 weeks or more. Based on these recommendations, I decided to extend my work
with three of the five students from my study. Results from this post study intervention will be summarized in stage 8.

**Stage 8: How well intervention solved the problem.** The results from my study reinforced what I have read in the literature that the OG approach is a valid Tier 2 reading intervention (Allison, 2016; Armistead & Armistead, 2006; Berg & Stegelman, 2003; Torgesen, 2004; Wanzek et al., 2010; Zylstra, 2013). My findings demonstrated that the students progressed in their ability to accurately decode and identify words at a faster rate than their grade level benchmark. Focusing the OG reading intervention on phonological and phonemic awareness provided the students with the reading skills to decipher the words and passage accurately. Based on my observations, hands-on implementation and reflection of the intervention I was able to surmise numerous recommendations that I believe would help to strengthen the effectiveness of the OG approach to a Tier 2 setting. With permission from the parents, learning support team, principal and classroom teachers, I continued to work with the students from January 2019 to March 11, 2019, in a post-study intervention applying my recommendations.

**Post-study intervention.** In brief, the post-study ran for another nine-weeks whereby I worked with only three of the five students. The three that were chosen worked well together, and the post results from the DORF assessment indicated that they still needed intervention. I continued to meet the three students as a small group on Mondays after lunch for 45 minutes; however, my second visit with the students was done individually. I met each student one-on-one for an additional 45 minutes on Wednesday after lunch. The reading intervention using the OG approach did not change. Each lesson was designed and implemented as per the process in my
initial study, as well, the assessment tools remained the same. On March 6, 2019, after another nine-weeks of reading intervention, I administered the DORF assessment.

Results from the extension to my study illustrated the benefits of an extra nine-weeks of intervention. All three students continued to develop their skills in accuracy at an accelerated rate. Of most interest though was that their fluency started to increase at a faster rate than the benchmark whereby one student was now able to read at the benchmark for grade 2. As the students became familiar and proficient in decoding, they were able to not only read more accurately but now they were reading more fluently.

**Implications for my Teaching**

I was fortunate to have the opportunity to carry out my study in the school setting. I was allowed to work with the five participants during the school hours thus providing an idyllic learning environment. I grew significantly as an OG practitioner as well as a researcher. It taught me to question, take risks and trust my intuition. Most importantly, I learned to appreciate the value of the direct teaching and intense review of phonemes and concepts. I also fostered a strong understanding of the impact of games and activities on learning. Finally, I was reminded of the diverse needs and abilities of students with a reading disability and that attending to their various personalities is necessary for success.

As an OG practitioner, I learned that the foundation of the OG approach was direct, sequential, multi-sensory teaching of phonological and phonemic awareness. However, the impact of this approach was most apparent when I could see the knowledge of a new concept transfer from one activity to the next. For example, the students first learned that the phoneme ‘ck’ was found after a short vowel sound and at the end of a word or syllable. When the students
later discovered that ‘tch’, ‘dge’ and ‘ct’ follow the same rule, they were able to quickly pick up on these new concepts and immediately apply their learning to spelling activities and games.

Games and activities also helped to instill an engaging atmosphere for the students where the learning and review were inconspicuously hidden in play. The students frequently commented on how much they enjoyed participating in the reading group. My participation in the study as the OG practitioner allowed me to embrace the learning process with the students whereby, laughing and playing was an integral part of this process.

Furthermore, through the work on my study, I developed a greater appreciation for the diverse needs of students with reading disabilities. Even when I directly taught a concept to the group of five students, the speed of reception and integration into their knowledge base varied substantially from student to student. This awareness helped me to understand how these students can fall behind so quickly in a general classroom. As mentioned, I found it difficult to fully attend to the needs of the students when they were in a group of five; however, when I reduced the number to three, as I did in the post-study intervention, I could easily direct my focus to the individual students. Students learning in a Tier 2 setting, need this extra support and attention.

I look forward to working in the learning support system and sharing my discoveries with my colleagues. Ideally, I would like to see all resource teachers in my district trained in the OG approach. It would provide them with a sound framework along with play-based strategies for working with students who struggle to read. I look forward to their questions, concerns and critical analysis of utilizing the OG approach in an intensive small group reading intervention setting.
Further Research

There is still very little research on the use of the OG approach as a reading intervention. The OG approach is not a program that can be followed and unfolded lesson by lesson in a classroom. The value of the approach is that it is guided by the characteristics of each child and implemented applying the intuition and expertise of the OG practitioner. It follows a scope and sequence; however, it is implicitly individualized to the student’s needs. The tailoring of the program to meet the needs of the student is what makes it a challenge to research, measure and thus replicate which is likely why the breadth of studies is lacking. Some private organizations and schools use the OG approach for their students who are struggling to read; thus, there is an opportunity to study this reading intervention.

Further study into ideal group size along with the frequency of sessions in conjunction with the length of time for each session would be valuable. Finding the optimal parameters is necessary when funding is a pertinent issue.

Conclusion

Using an action research methodology, I explored the question: How effective is the OG approach in supporting the reading skills of struggling primary students within a small group, Tier 2 context? I worked with five grade 2 students who were identified, through a DORF (2011) reading assessment, to be reading at below benchmark for grade 2. Over the course of nine-weeks, we met as a group twice a week for 45 minutes each session. The reading intervention used was the OG approach whereby the focus was to develop the students’ skills in phonemic awareness, sight word identification, and fluency. As much as comprehension was not measured in this study, there was a continual discussion while the students were reading with me. The
purpose of this conversation was to reinforce that reading was not just about decoding words, but to make meaning of the text and to find enjoyment in the story.

Results from the study demonstrated that the students improved in their ability to read the words accurately; their decoding skills had increased substantially whereby they were now able to sound out words as opposed to guessing. The participants’ accuracy when reading increased at an accelerated rate compared to the benchmark level for their grade. The extension of my study illustrated the value of increasing the duration of a reading intervention. Three of the five participants continued to participate in the OG reading intervention for a further nine-weeks. We continued to work twice a week with the first session held as a group, while the subsequent lesson was one-on-one. Results from the post-study showed that the students continued to develop their decoding skills as seen in an increase in accuracy. As well, the students also increased the number of sight words that they could identify along with a substantial improvement in fluency. Again, the increase in both fluency and accuracy was at an enhanced rate compared to the benchmark.

Based on my ongoing reflections and adaptations throughout my study, I was able to summarize a few recommendations that I believe would lead to best practice. To begin with, I would continue with the OG approach as an intensive reading intervention as it proved to benefit the students’ development of strong decoding strategies which improved their overall accuracy when reading. Furthermore, as decoding became more familiar to the students, their fluency started to increase at an accelerated rate when compared to benchmark. Secondly, I would maintain a group size of three or fewer students, and we would meet at least three times a week, 30-40 minutes per session. Within the three sessions, one would be implemented in a one-on-one setting. Finally, I would recommend that the intervention continue for 20 or more weeks.
Finances dictate the implementation of Tier 2 interventions in the BC public school system. The smaller the group of students along with the increase in frequency and duration will, of course, be more expensive; however, the cost of insufficiently addressing the needs of our struggling students is potentially detrimental.

My intention for exploring this question was to discover how I could implement the OG approach, which is commonly used as a one-on-one intervention, in a small group, Tier 2 setting — allowing the benefits of a sound, evidence-based program to reach more students.
References


Pestalozzi, J. H. (1986). *The evening hours of a hermit*. M. Kodama:


Appendix A

Dynamic Indicator for Basic Early Literature Skills Oral Reading Fluency (DORF) (2011)
Sue's Goals

1. Max was sitting at the table writing in a notebook. Sue asked what
2. she was doing. Max said she was making a lot of goals she wanted to
3. meet or work. Sue was interested. She wondered how it would feel to set
4. a goal and reach it.
5. Sue decided she would write down one goal a day. She thought
6. about what she wanted to do for her first goal. At school she was
7. learning about healthy foods. That gave Sue a great idea. She would
8. set a goal to eat two servings of vegetables every day. Later, at lunch,
9. Sue looked in the fridge. She got out a stalk of celery to eat with her
10. sandwich. At dinner, Sue had a helping of spinach. That night, she drew
11. a line through the green on her paper. She got really excited about meeting
12. her goal. Sue even decided she liked eating spinach.
13. The next morning, Sue set a new goal. She would clean out a
14. drawer in her dresser. Sue spread the drawer and took everything out.
15. She made a pile to keep and a pile to give away. She could not believe
16. how much stuff was in the drawer. Sue nearly threw things she wanted
17. to keep in the drawer. She carried the other pile to her mother. Her
18. mother helped her decide which things were in good enough shape to
19. be given away.
20. Sue smiled as she crossed the second goal off her list. She was
21. proud of what she had done. She began to think about the goal she
22. would set for tomorrow.

The Best Big Brother

1. Max thought his big brother Kevin was awesome. Kevin was perfect.
2. He was a great soccer player and he played in the band. He was also
3. a good student, too. Max wanted to be just like Kevin. However, when Max
4. tried to do something Kevin did, he was never as good as Kevin always
5. reminded him that he was six years younger. When Max was eleven, he
6. was even better at soccer just like Kevin. Although Max knew Kevin
7. was right, he still felt disappointed. He wanted to be just like Kevin right
8. away.
9. Max went to bed, and Max felt better at what he did. Then one day
10. Kevin went to college. Max would miss his big brother. At first, Max
11. was very sad, but his schoolwork and activities kept him busy.
12. After school, he had band practice twice a week. Two days a week he
13. had soccer practice, and he had soccer games on Saturdays.
14. One Saturday, Max was playing his soccer game. He scored
15. two goals in the first half. When he scored the second goal, he heard
16. a familiar voice yelling in excitement. Max scanned the stands and saw
17. Kevin had come home from college to watch Max's game. After the
18. game, Kevin congratulated Max on having a great game. "You're the
19. best," he said.
20. Max hugged Kevin, he realized he had become a lot like his big
21. brother. "No," he said. "We're the best!"
Appendix B

Recruitment Letter

Thank you for your interest in this study.

My name is Morag Kelpin and I am working on my Master of Education in Special Education through Vancouver Island University. My interest is the development of reading skills amongst primary school students with reading disabilities or who struggle with reading. Along with my training as a teacher, I also trained to become an Orton-Gillingham practitioner and tutored students who were struggling to read. This leads to my question for my thesis:

**How effective is the Orton-Gillingham approach to a small group, Tier 2 context in supporting the reading skills of struggling primary students?**

The Orton-Gillingham method was designed by Samuel T. Orton and Anna Gillingham in the 1930s. Dr. Samuel Torrey Orton was a pathologist, neuropathologist, neurologist, and psychiatrist. His attention was focused on reading failure and related language processing difficulties bringing together neuroscience along with principles of remediation. Anna Gillingham was a gifted educator. Encouraged by Orton, she compiled and published instructional materials in the 1930s which provided the foundation for student instruction and teacher training.

The Orton-Gillingham approach differs from other reading programs in that it utilizes a multisensory approach to directly teach reading skills in a sequential, controlled process. Practice and review are reinforced through games, activities and overlearning that all encompass the multisensory method. Multisensory method refers to learning through the students’ visual, auditory, kinesthetic and tactile senses in order to develop and reinforce neurological pathways to the brain.

The purpose of my research is to study how the Orton-Gillingham approach can be used with a small group Tier 2 context in supporting primary students who are struggling to read. Within the educational system a Tier 2 intervention is considered when a student is struggling to
acquire the given skills through classroom instruction alone. Extra support and intervention is needed by a specialist in the Learning Support centre or other discipline such as speech therapist or occupational therapist. For my study, I would like to recruit six students from Grade 2 who need extra support in reading. As a group, we will meet twice a week after school for one hour each session. The sessions will run over 10 weeks from the end of September to the beginning of December. Actual dates will be confirmed in the fall.

The format of each lesson will be consistent. At the end of the school day, the participants will be asked to bring their backpacks down to the Learning Support room at [West Bay School]. There will be a 15-minute break before the lessons start whereby the students can eat a snack brought from home and then go to the washroom. All sessions will be a group format (total of six students in the group). The focus of the sessions is to develop reading skills and strategies to improve the student’s ability to decode words, to improve their reading fluency and comprehension. Each lesson will start with a review of newly learned material followed by the introduction of a new skill. Practice of skills is done through stations and games to engage the students and reinforce their knowledge through a visual, tactile, auditory and kinesthetic method. Very little homework will be expected from the participants. Each week, the students will be asked to find a word around the home, and then write this word on an index card and bring in for the classroom word wall.

The commitment in participating in this study is assurance that your child would be able to attend the two weekly sessions for the full ten-week duration. The benefits for your child is growth and development in his/her reading skills along with the confidence that comes with this progress.

If you are interested in having your child participate in this study, please contact me for further information. A consent form for the parents along with an assent form for the student will be sent out in advance for your review. As well, a private meeting will be set up to review the project and to answer any questions or concerns that you or your child may have.

I look forward to working with you and your child.

Sincerely,

Morag Kelpin
Appendix C

Parent Consent

Orton-Gillingham Classroom Educator Small Group Reading Intervention

Principal Investigator
Morag Kelpin, Student Researcher
Master of Special Education
Vancouver Island University

Student Supervisor
Ana Vieira
Department of Education
Vancouver Island University

Purpose
I am a student in the Master of Special Education at Vancouver Island University (VIU). My research, entitled Orton-Gillingham Classroom Educator Small Group Reading Intervention aims to assess the efficacy of a small group, Tier 2 reading intervention with grade 2 students. My hope is that my study will contribute to the research on the Orton-Gillingham approach as well as introduce this method as a Tier 2 reading intervention option in the West Vancouver School District.

Participants
I would like to ask if you would be willing to allow your child to participate in the Orton-Gillingham Tier 2 reading intervention. Your child will be asked to participate in two sessions per week, one hour per session, over a ten-week period. The lessons will take place at [school name] school in the Learning Support room. At the end of the day, the participants will be asked to bring their backpacks down to the Learning Support room. There will be a 15-minute break before the lessons start whereby the students can eat a snack brought from home and then go to the washroom. All sessions will be a group format (total of six students in the group). Each lesson will consist of review of newly learned material, introduction of new skills, stations and games to practice newly learned skills and then reading fluency and comprehension. Very little homework will be expected from the participants. Each week, the participant will be asked to find a word around the home, and then write this word on an index card and bring in for the classroom word wall.

Risk or Harm to Participants
Confidentiality and the student’s integrity are important. For the purpose of the thesis paper, the participants will be identified by a code letter. Their names will not appear in the thesis. Data collected from ongoing assessments will be shared with the parents/guardians at the 5-week mark and upon completion of the project. A report with this data along with anecdotal notes on your child will be given to you, the parent/guardian. As for the student’s integrity, the researcher is well aware that participating in a Reading Intervention outside of the school hours may elicit questions and comments from peers. At any time, leaving the classroom for extra support with
the Learning Support Teachers has the potential to elicit the same questions and comments from the peers, that said, it is a common practice at [redacted] and all students learn to appreciate the diversity amongst our learners. With this in mind, walking downstairs to the Learning Support Room after school will hopefully draw little attention; however, concerns will be addressed immediately as needed.

Confidentiality
The personal identity of the participants in this project will be kept confidential. Each participant will be assigned a random letter for the sake of collecting data and maintaining confidentiality; only the researcher will have knowledge of the student to letter correspondence. Data collected on each student will be used solely for the purpose of the Master’s thesis unless the parent wishes to share the results with the classroom teacher at which point accommodations will be made.

Management of Research Information/Data
All reading assessments will be completed on a hard copy. Electronic data will be stored on a password-protected computer. Signed consent forms and paper copies of the reading assessments will be stored in a locked file cabinet in my home. Data will be deleted and shredded at the end of the project, approximately June 30th, 2021.

Use of Research Information
The results of this study will be published in my Master of Education in Special Education thesis, and may also be used for conference publications, presentations, and published in peer-reviewed journals.

Participation and withdrawal
Your participation is completely voluntary. You may withdraw your child from the study at any time, for any reason and without explanation. If you choose to withdraw from the study, all information on your child’s progress and assessments will be shredded. At the end of the second week of the reading sessions, it is requested, by the researcher, that all participants remain with the study.

Upon completion of the 10-week intervention, you will be provided with all of the data on your child, that was collected from the Orton-Gillingham Classroom Educator Assessment Tool, the DORF: DIBELS Benchmark Assessment and the Weekly Running Record. You will be given two weeks after being provided with the materials to withdraw from the project. This would mean that your child participated in the 10-week intervention, but the data collected on your child will not be used in the Masters thesis paper.

Consent and Conditions of Consent
I have read and understand the information provided above, and hereby consent to allow my child to participate in this research under the following conditions:

I consent to having my child participate in the study as indicated. ☐ Yes ☐ No
I consent to having my child’s comments included anonymously in the study

☐ Yes  ☐ No

Parent Name ______________________ Parent Signature ______________________

I, Morag Kelpin, promise to adhere to the procedures described in this consent form.

Principal Investigator Signature __________________________ Date ________________

If you have any concerns about your child’s treatment as a research participant in this study, please contact the VIU Research Ethics Board by telephone at 250-740-6631 or by email at reb@viu.ca.

Parents/guardians of the participants will be provided a copy of the signed consent form.
Appendix D

Student Assent

Orton-Gillingham Classroom Educator Small Group Reading Intervention

Principal Investigator
Morag Kelpin, Student Researcher
Master of Special Education
Vancouver Island University

Student Supervisor
Ana Vieira
Department of Education
Vancouver Island University

It is requested that an adult reads this letter of assent to the student.

Purpose
I am a student at University learning more about how to teach students how to read. I am hoping to work with six students in grade 2 in order to help them with their reading skills.

What would you have to do?
Our reading group will meet twice a week after school. When the bell rings at the end of the school day, you will come down to the Learning Commons and drop your backpack and jacket in our work area. Before we get started, it is important that you eat a snack brought from home so that your body is energized. When we are all ready, we will gather at the tables and learn new skills for reading. Most times we work as a group, but sometimes you get to work on your own or with a partner. A lot of the learning is done through games, activities and spelling in the sand.

There is only a small amount of homework. I am going to ask you to be a sound detective. You will be asked to find words at home that have the newly learned sound in it. Once you find this word, it would be great if you wrote it on a card and brought in into our next lesson to share with the other students.

Expectations in class
This project is important as it may help us find other ways to help students with their reading. Since it is so important, I am expecting the six students who are participating in the lessons to give their best. Best behaviour, best work and best attitude.

What I hope that you will get out of these lessons
I am taking on this project because I think that I have some fun ways of teaching students to read and I am hoping that you will enjoy the lessons, learn some new skills and feel good about your reading.
Withdrawal from the study
If there comes a time that you do not want to take part in the study, you can stop. I will not insist that you continue to participate.

Questions and concerns
If you are ever worried about the lessons or have questions for me, you can always ask me in class or have your parent help you write an email to me. It is good to ask when you are unsure, and I will be happy to help out.

Please turn over to sign the assent
Parents/guardians of the participants will be provided a copy of the signed assent form.

Consent and Conditions of Consent
An adult read this consent form to me. I have had the chance to ask questions to the researcher and I understand the information above and about the project. I assent to participate in the research project under the following conditions:

I assent to participating in the study as indicated. □ Yes □ No

I assent to giving my best behaviour when participating in lessons. □ Yes □ No

I assent to having the teacher use my comments, without using my name, in her study □ Yes □ No

Participant Name ________________________ Participant Signature ______________________

I, Morag Kelpin, promise to adhere to the procedures described in this assent form.

Principal Investigator Signature ________________________ Date _____________
Appendix E

Letter to the Director of Instruction

Principal Investigator
Morag Kelpin, Student Researcher
Master of Special Education
Vancouver Island University

Student Supervisor
Ana Vieira
Department of Education
Vancouver Island University

Liz Hill
Director of Instruction
1075 21st Street
West Vancouver, BC.

Dear Ms. Hill,

I am working on my Master of Education in Special Education through Vancouver Island University. My interest is the development of reading skills amongst primary school students with reading disabilities or who struggle with reading. Along with my training as a teacher, I also trained to become an Orton-Gillingham practitioner and tutored students who were struggling to read. This leads to my question for my thesis:

**How effective is the Orton-Gillingham approach to a small group, Tier 2 context in supporting the reading skills of struggling primary students?**

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auditory, kinesthetic and tactile senses in order to develop and reinforce neurological pathways to the brain.

The purpose of my research is to study how the Orton-Gillingham approach can be used with a small group Tier 2 context in supporting primary students who are struggling to read. For my study, I would like to recruit six students from Grade 2 who need extra support in reading. As a group, we will meet twice a week after school for one hour each session. The sessions will run over 10 weeks from the end of September to the beginning of December. Actual dates will be confirmed in the fall.

The format of each lesson will be consistent. At the end of the school day, the participants will be asked to bring their backpacks down to the Learning Support room at [location]. There will be a 15-minute break before the lessons start whereby the students can eat a snack brought from home and then go to the washroom. All sessions will be a group format (total of six students in the group). The focus of the sessions is to develop reading skills and strategies to improve the student’s ability to decode words, to improve their reading fluency and comprehension. Each lesson will start with a review of newly learned material followed by the introduction of a new skill. Practice of skills is done through stations and games to engage the students and reinforce their knowledge through a visual, tactile, auditory and kinesthetic method. Very little homework will be expected from the participants. Each week, the students will be asked to find a word around the home, and then write this word on an index card and bring in for the classroom word wall.

My goal is to learn more about the Orton-Gillingham Approach as it pertains to a small group setting. If this study is a success and we see significant improvement with the students reading skills post intervention, then I would like to share this knowledge amongst my colleagues within the School District.

The first step toward working on this master’s thesis was approval from the Research Ethics Board of Vancouver Island University. This was completed in June 2018. I am now seeking approval from you, as Director of Instruction, to implement my master’s project starting in the end of September 2018 and continuing into early December 2018. I would be happy to meet with you to answer and questions and clarify the nature of the project.

I look forward to hearing back from you at your convenience.

Sincerely,

Morag Kelpin
Appendix F

Informal Phonological Awareness Assessment

Word Segmentation
"When we speak, and when we read, we use words. If we were listening for the words in a phrase like ‘my friend’, we might be able to count two separate words (my...,friend...). Listen to these groups of words and tell me how many words are in each group." Use manipulatives to count, if necessary.

<table>
<thead>
<tr>
<th>his dog</th>
<th>his/ dog</th>
</tr>
</thead>
<tbody>
<tr>
<td>We went home.</td>
<td>we / went/ home</td>
</tr>
<tr>
<td>in the garden</td>
<td>in/ the / garden</td>
</tr>
<tr>
<td>red ambulance</td>
<td>red / ambulance</td>
</tr>
<tr>
<td>quickly running</td>
<td>quickly / running</td>
</tr>
<tr>
<td>seven racing cars</td>
<td>seven/ racing/ cars</td>
</tr>
<tr>
<td>up the ladder</td>
<td>up/ the/ ladder</td>
</tr>
<tr>
<td>spotted kitten</td>
<td>spotted / kitten</td>
</tr>
<tr>
<td>My favourite colour is blue.</td>
<td>My/ favourite/ colour/ is/ blue.</td>
</tr>
<tr>
<td>Playing on the swings.</td>
<td>Playing/ on/ the/ swings.</td>
</tr>
</tbody>
</table>

Test Date:  Score:

Syllable Segmentation
"Each word we say can have one beat, or syllable, or it can have many beats. If I counted the syllables, or beats, in the word table, I would count two. (Demonstrate ‘ta-ble’) Count the different syllables, or beats, in these words."

<table>
<thead>
<tr>
<th>sun</th>
<th>sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>thimble</td>
<td>thim/ ble</td>
</tr>
<tr>
<td>crayon</td>
<td>cray / on</td>
</tr>
<tr>
<td>glass</td>
<td>glass</td>
</tr>
<tr>
<td>hospital</td>
<td>hos/ pit/ al</td>
</tr>
<tr>
<td>paper</td>
<td>pâ/ per</td>
</tr>
<tr>
<td>information</td>
<td>inf/ for/ ma/ tion</td>
</tr>
<tr>
<td>Canada</td>
<td>Can/ ad/ a</td>
</tr>
<tr>
<td>helicopter</td>
<td>hel/ i / cop/ ter</td>
</tr>
<tr>
<td>camel</td>
<td>cam/ el</td>
</tr>
</tbody>
</table>

Test Date:  Score:
**Syllable Blending**

"I am going to say words broken into their syllables, or beats. I might sound like a robot. Tell me the whole word that I am saying. For example, if I said ro - bot, you would say 'robot'."

<table>
<thead>
<tr>
<th>Word</th>
<th>Syllable Blending</th>
</tr>
</thead>
<tbody>
<tr>
<td>ice/ing</td>
<td>icing</td>
</tr>
<tr>
<td>Sun/day</td>
<td>Sunday</td>
</tr>
<tr>
<td>rab/bit</td>
<td>rabbit</td>
</tr>
<tr>
<td>ap/pl</td>
<td>apple</td>
</tr>
<tr>
<td>ar/ im/al</td>
<td>animal</td>
</tr>
<tr>
<td>re/ port/ ing</td>
<td>reporting</td>
</tr>
<tr>
<td>el/e/ phant</td>
<td>elephant</td>
</tr>
<tr>
<td>com/ pu/ ter</td>
<td>computer</td>
</tr>
<tr>
<td>cell/ u/ lar</td>
<td>cellular</td>
</tr>
<tr>
<td>cal/ cu/ la/ tor</td>
<td>calculator</td>
</tr>
</tbody>
</table>

Test Date:  
Score:

**Syllable Deletion**

"This time, listen and repeat each word I say. I will then ask you to take part of the word away, then say the word again. For example, if I said 'Please say robot without the ro', you would say 'bot'."

<table>
<thead>
<tr>
<th>Word</th>
<th>Syllable Deletion</th>
</tr>
</thead>
<tbody>
<tr>
<td>cupcake without cup</td>
<td>cake</td>
</tr>
<tr>
<td>snowman without snow</td>
<td>man</td>
</tr>
<tr>
<td>hammer without er</td>
<td>ham</td>
</tr>
<tr>
<td>winter without win</td>
<td>ter</td>
</tr>
<tr>
<td>ruler without ru</td>
<td>ter</td>
</tr>
<tr>
<td>pencil without cil</td>
<td>pen</td>
</tr>
<tr>
<td>letter without er</td>
<td>let</td>
</tr>
<tr>
<td>marker without mar</td>
<td>ker</td>
</tr>
<tr>
<td>envelope without en</td>
<td>velope</td>
</tr>
<tr>
<td>envelope without ope</td>
<td>envel</td>
</tr>
</tbody>
</table>

Test Date:  
Score:
Informal Phonological Awareness Assessment

**Onset/Rime Identification:**
"Words can be broken in other ways. This time, I will say a word and I want you to tell me the first sound in the word, then the rest of the word. For example, if I said 'hat', you would break it into the first sound, /h/, then the rest of the word, /at/.

<table>
<thead>
<tr>
<th>light</th>
<th>/ight</th>
</tr>
</thead>
<tbody>
<tr>
<td>car</td>
<td>/ar</td>
</tr>
<tr>
<td>pen</td>
<td>/en</td>
</tr>
<tr>
<td>chicken</td>
<td>/icken</td>
</tr>
<tr>
<td>drive</td>
<td>/ive or /ive</td>
</tr>
<tr>
<td>kitten</td>
<td>/itten</td>
</tr>
<tr>
<td>mint</td>
<td>/int</td>
</tr>
<tr>
<td>locket</td>
<td>/ocket</td>
</tr>
<tr>
<td>brother</td>
<td>/rother or /r/other</td>
</tr>
<tr>
<td>splash</td>
<td>/splash or /slash or /spl/ash</td>
</tr>
</tbody>
</table>

Test Date: Score:

**Rhyme Detection:**
"Words rhyme when they end with the same sound. Listening to the words *pat* and *hat*, they rhyme because both words end with the /at/ sound. Listen to these word pairs carefully and tell me if they rhyme, or don’t rhyme."

<table>
<thead>
<tr>
<th>Do these words rhyme?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>mit and sit</td>
</tr>
<tr>
<td>can and man</td>
</tr>
<tr>
<td>not and knife</td>
</tr>
<tr>
<td>shake and rake</td>
</tr>
<tr>
<td>bag and bag</td>
</tr>
<tr>
<td>sand and sound</td>
</tr>
<tr>
<td>time and tide</td>
</tr>
<tr>
<td>past and west</td>
</tr>
<tr>
<td>gust and mark</td>
</tr>
<tr>
<td>hen and plant</td>
</tr>
<tr>
<td>sand and sound</td>
</tr>
</tbody>
</table>

Test Date: Score:
Informal Phonological Awareness Assessment

**Rhyme Production:** Rhyme production (generating rhyming words is usually more difficult than rhyme detection).
"I will say some words that rhyme and I want you to think of another word that rhymes with these words. Your rhyming word can be a real word or a nonsense word. For example, if I said trip, sip, you might say kip, or blip."

<table>
<thead>
<tr>
<th></th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fin, tin...</td>
<td></td>
</tr>
<tr>
<td>Bat, mat...</td>
<td></td>
</tr>
<tr>
<td>Log, dog...</td>
<td></td>
</tr>
<tr>
<td>Ham, lamb...</td>
<td></td>
</tr>
<tr>
<td>Med, wed...</td>
<td></td>
</tr>
<tr>
<td>Trick, wick...</td>
<td></td>
</tr>
<tr>
<td>Fun, bun...</td>
<td></td>
</tr>
<tr>
<td>Peep, weep...</td>
<td></td>
</tr>
<tr>
<td>Twine, vine...</td>
<td></td>
</tr>
<tr>
<td>Sniff, whiff...</td>
<td></td>
</tr>
</tbody>
</table>

Test Date:  Score: 

**Detecting the first, final and medial sounds in words.**

**Initial Sound Detection:** "I will say a word and I want you to tell me what sound is at the beginning of the word. For example, if I said 'chicken', you would say /ch/.”

<table>
<thead>
<tr>
<th></th>
<th>Sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hat</td>
<td>/h/</td>
</tr>
<tr>
<td>Dog</td>
<td>/d/</td>
</tr>
<tr>
<td>Fun</td>
<td>/f/</td>
</tr>
<tr>
<td>Shark</td>
<td>/sh/</td>
</tr>
<tr>
<td>Chip</td>
<td>/ch/</td>
</tr>
<tr>
<td>Think</td>
<td>/th/</td>
</tr>
<tr>
<td>Bark</td>
<td>/b/</td>
</tr>
<tr>
<td>Snowball</td>
<td>/s/</td>
</tr>
<tr>
<td>Caterpillar</td>
<td>/k/</td>
</tr>
<tr>
<td>Desert</td>
<td>/d/</td>
</tr>
</tbody>
</table>

Test Date:  Score: 

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Informal Phonological Awareness Assessment

**Final Sound Detection:** "This time, I will say a word and I want you to tell me what sound comes at the end of the word. For example, if I say 'chicken', you would say /n/."  

<table>
<thead>
<tr>
<th>Word</th>
<th>Sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mat</td>
<td>/t/</td>
</tr>
<tr>
<td>Snag</td>
<td>/g/</td>
</tr>
<tr>
<td>Comb</td>
<td>/m/</td>
</tr>
<tr>
<td>Plate</td>
<td>/t/</td>
</tr>
<tr>
<td>Snack</td>
<td>/k/</td>
</tr>
<tr>
<td>Ribbon</td>
<td>/n/</td>
</tr>
<tr>
<td>Horse</td>
<td>/s/</td>
</tr>
<tr>
<td>Garbage</td>
<td>/j/</td>
</tr>
<tr>
<td>Water</td>
<td>/er/</td>
</tr>
<tr>
<td>Kangaroo</td>
<td>/oo/</td>
</tr>
</tbody>
</table>

**Test Date: Score:**

**Medial Sound Detection:** "I will say a word and I want you to tell me what sound you hear in the middle of the word. For example, if I said 'phone', you would say /o/."  

<table>
<thead>
<tr>
<th>Word</th>
<th>Sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cap</td>
<td>/a/</td>
</tr>
<tr>
<td>Set</td>
<td>/e/</td>
</tr>
<tr>
<td>Book</td>
<td>/Ω/</td>
</tr>
<tr>
<td>Cheat</td>
<td>/e/</td>
</tr>
<tr>
<td>Barn</td>
<td>/ar/</td>
</tr>
<tr>
<td>Sip</td>
<td>/i/</td>
</tr>
<tr>
<td>Pool</td>
<td>/oo/</td>
</tr>
<tr>
<td>Boat</td>
<td>/ø/</td>
</tr>
<tr>
<td>Right</td>
<td>/i/</td>
</tr>
<tr>
<td>Pout</td>
<td>/ou/</td>
</tr>
</tbody>
</table>

**Test Date: Score:**
Informal Phonological Awareness Assessment

**Segmenting Phonemes**
"I will say a whole word, and I want you to say each of the individual sounds you hear in the word. For instance, if I said 'clap', you would say \(/k/, /l/, /a/, /p/\)."

<table>
<thead>
<tr>
<th>Word</th>
<th>Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up</td>
<td>/u/ /p/</td>
</tr>
<tr>
<td>Hot</td>
<td>/h/ /o/ /t/</td>
</tr>
<tr>
<td>When</td>
<td>/w/ /e/ /n/</td>
</tr>
<tr>
<td>Slip</td>
<td>/s/ /l/ /i/ /p/</td>
</tr>
<tr>
<td>Chimp</td>
<td>/ch/ /i/ /m/ /p/</td>
</tr>
<tr>
<td>Shout</td>
<td>/sh/ /ou/ /t/</td>
</tr>
<tr>
<td>Third</td>
<td>/th/ /e/ /r/ /d/</td>
</tr>
<tr>
<td>Stack</td>
<td>/s/ /l/ /a/ /k/</td>
</tr>
<tr>
<td>Clasp</td>
<td>/k/ /l/ /a/ /s/ /p/</td>
</tr>
<tr>
<td>Bench</td>
<td>/b/ /e/ /n/ /ch/</td>
</tr>
</tbody>
</table>

Test Date: Score:

---

**Blending Phonemes**
"I will say sounds sounds, and I want you to tell me the whole word that the sounds make if they were together. For example, if I said ‘/k/ /a/ /t/’, you would say ‘cat’.

<table>
<thead>
<tr>
<th>Sounds</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>/a/ /t/</td>
<td>it</td>
</tr>
<tr>
<td>/l/ /o/ /p/</td>
<td>top</td>
</tr>
<tr>
<td>/h/ /o/ /t/</td>
<td>hut</td>
</tr>
<tr>
<td>/th/ /i/ /s/</td>
<td>this</td>
</tr>
<tr>
<td>/p/ /l/ /a/ /n/</td>
<td>plan</td>
</tr>
<tr>
<td>/sh/ /a/ /k/</td>
<td>shack</td>
</tr>
<tr>
<td>/s/ /l/ /a/ /k/</td>
<td>stick</td>
</tr>
<tr>
<td>/l/ /u/ /b/</td>
<td>tub</td>
</tr>
<tr>
<td>/h/ /a/ /n/ /d/</td>
<td>hand</td>
</tr>
<tr>
<td>/s/ /k/ /r/ /a/ /p/</td>
<td>scrap</td>
</tr>
</tbody>
</table>

Test Date: Score:
Dealing Phonemes
"Listen and repeat each word I say. I will then ask you to take part of the word away, then say the word again. For example, if I said 'Please say chair without the dict', you would say 'air'." say sounds

| sleep take away /s/ | leep |
| clap take away /k/ | lap |
| drive take away /d/ | rive |
| drive take away /v/ | dri |
| wipe take away /p/ | wi |
| guide take away /d/ | gui |
| strong take away /r/ | stong |
| shrimp take away /m/ | shrip |
| track take away /r/ | tack |
| flab take away /l/ | fab |

Test Date: Score:

Manipulating sounds in words.
"We are going to change a sound in each word to make new words. For example, if I said 'dog' and changed the /d/ to /l/, the new word would be 'log'."

Say "bag". Change the /b/ to /l/.
Say "fin". Change the /f/ to /b/.
Say "sun". Change the /s/ to /r/.
Say "bat". Change the /b/ to /l/.
Say "dog". Change the /g/ to /l/.
Say "flip". Change the /f/ to /b/.
Say "camp". Change /k/ to /l/.
Say "cat". Change the /f/ to /l/.
Say "kiss". Change the /s/ to /k/.
Say "camp". Change /k/ to /l/.

Test Date: Score:
### Appendix G

**Phonetic Words for Diagnostic Reading**

<table>
<thead>
<tr>
<th>on</th>
<th>hop</th>
<th>mug</th>
<th>net</th>
<th>sill</th>
</tr>
</thead>
<tbody>
<tr>
<td>fab</td>
<td>cod</td>
<td>just</td>
<td>kept</td>
<td>quick</td>
</tr>
<tr>
<td>yams</td>
<td>lops</td>
<td>trunk</td>
<td>flex</td>
<td>zing</td>
</tr>
<tr>
<td>shack</td>
<td>chomp</td>
<td>whisk</td>
<td>fledge</td>
<td>twitch</td>
</tr>
<tr>
<td>acting</td>
<td>stomper</td>
<td>rusted</td>
<td>belting</td>
<td>wishful</td>
</tr>
<tr>
<td>calling</td>
<td>costed</td>
<td>slumped</td>
<td>ventless</td>
<td>briskly</td>
</tr>
<tr>
<td>rave</td>
<td>quote</td>
<td>puke</td>
<td>theme</td>
<td>shrine</td>
</tr>
<tr>
<td>activate</td>
<td>provoke</td>
<td>dispute</td>
<td>complete</td>
<td>confide</td>
</tr>
<tr>
<td>trail</td>
<td>garnish</td>
<td>coast</td>
<td>midterm</td>
<td>comply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>zab</th>
<th>vod</th>
<th>hun</th>
<th>sep</th>
<th>fim</th>
</tr>
</thead>
<tbody>
<tr>
<td>jat</td>
<td>wox</td>
<td>cug</td>
<td>quem</td>
<td>yick</td>
</tr>
<tr>
<td>blamp</td>
<td>gronk</td>
<td>dring</td>
<td>skeft</td>
<td>trisp</td>
</tr>
<tr>
<td>grash</td>
<td>thrund</td>
<td>chift</td>
<td>sheck</td>
<td>quitch</td>
</tr>
</tbody>
</table>
Appendix H

Phonetic Words for Diagnostic Spelling

<table>
<thead>
<tr>
<th>Phonetic Words for Diagnostic Spelling:</th>
</tr>
</thead>
<tbody>
<tr>
<td>short vowels</td>
</tr>
<tr>
<td>fan, nod, hug, mot, list</td>
</tr>
<tr>
<td>short vowels, prev. stress</td>
</tr>
<tr>
<td>tab, vad, lam, kep, cylind</td>
</tr>
<tr>
<td>short vowels, blends, etc</td>
</tr>
<tr>
<td>flex, zenk, clump, west, sing</td>
</tr>
<tr>
<td>short vowels, digraphs</td>
</tr>
<tr>
<td>track, blotch, sniff, fudge, think</td>
</tr>
<tr>
<td>short vowels, variably, clusters</td>
</tr>
<tr>
<td>fromful, clamped, stutter, swelling,</td>
</tr>
<tr>
<td>springing</td>
</tr>
<tr>
<td>other &amp; higher level concepts</td>
</tr>
<tr>
<td>grove, stroke, turns, these, quite</td>
</tr>
<tr>
<td>other &amp; higher level concepts</td>
</tr>
<tr>
<td>curls, portable, turning, fearful, chiped</td>
</tr>
</tbody>
</table>
Appendix I

Easy CBM: Student Copy

Student Copy

Jessie was a rabbit. She was small and very, very quiet. She had soft grey fur and a snow-white tail. She lived in a big field with many other animals. There were lizards and snakes. She saw them mostly in the summer when it was hot. There were tiny mice. They liked to run really fast. The mice got nervous if they were out in the open for very long, so Jessie did not see them too often. Many birds lived in the field too. Some were small. Others were big. Jessie was not afraid of these birds. But there was one type of bird that Jessie was afraid of. Her mom told her to be careful when this type of bird was around. So Jessie always looked carefully before she went into the field to play. She wanted to know if there was a hawk around!

One day Jessie was hopping around the field. She stopped now and then to eat bits of grass. She also stopped to check to make sure there were no hawks in the sky. Then, she found a patch of extra tasty grass. It was sweet and moist. It tasted better than anything Jessie had ever eaten before. After a little while, Jessie remembered what her mother had said. She checked the sky for danger. She saw a hawk flying far up in the sky. She turned and ran back to the bushes where her home was hidden. She was lucky the hawk had not seen her.
## Appendix J

### Easy CBM: Assessor Copy

<table>
<thead>
<tr>
<th>Assessor Copy</th>
<th>Form 2-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Name: ___________________</td>
<td>Date: ______________</td>
</tr>
</tbody>
</table>

1. Place the Student Copy in front of the student. Point to the names on the Student Copy as you read them:
   "This is a story about Jessie. I want you to read this story to me. You'll have 1 minute to read as much as you can. When I say “begin,” start reading aloud at the top of the page. Do your best reading. If you have trouble with a word, I'll tell it to you. Do you have any questions? Begin."

2. Start the timer.

3. While the student is reading, mark errors with a slash (/).

4. At 1 minute, mark the last word read with a bracket (]).

5. When the student gets to a logical stopping place, say “Stop.”

---

Jessie was a rabbit. She was small and very, very quiet. She had Soft grey fur and a snow-white tail. She lived in a big field with many other animals. There were lizards and snakes. She saw them mostly in the summer when it was hot. There were tiny mice. They liked to run really fast. The mice got nervous if they were out in the open for very long, so Jessie did not see them too often. Many birds lived in the field too. Some were small. Others were big. Jessie was not afraid of these birds. But there was one type of bird that Jessie was afraid of. Her mom told her to be careful when this type of bird was around. So Jessie always looked carefully before she went into the field to play. She wanted to know if there was a hawk around!

One day Jessie was hopping around the field. She stopped now and then to eat bits of grass. She also stopped to check to make sure there were no hawks in the sky. Then, she found a patch of extra tasty grass. It was sweet and moist. It tasted better than anything Jessie had ever eaten before. After a little while, Jessie remembered what her mother had said. She checked the sky for danger. She saw a hawk flying far up in the sky. She turned and ran back to the bushes where her home was.

---

Total Words Read:______ - # of Errors:______ = CWPM:______
## Appendix K

OG: Basic Remedial Lesson Plan

<table>
<thead>
<tr>
<th>Date: ___________</th>
<th>Previously Taught: ____________________________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Known challenges: _________________________________________________</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 min</th>
<th><strong>Visual Drill</strong>: “read these sounds as many ways as you can”</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 min</td>
<td><strong>Blending</strong>: “Say the first sound, hold it, blend to next. Say the word”</td>
</tr>
<tr>
<td>3 min</td>
<td><strong>Word Reading</strong>: known phonograms within phonetic words</td>
</tr>
<tr>
<td>3 min</td>
<td><strong>Sight Word Reading</strong>: known <strong>sight</strong> words</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 min</th>
<th><strong>Auditory Drill</strong>: “watch me, repeat, spell as many ways as you can”</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 min</td>
<td><strong>Simultaneous Oral Spelling</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Phonetic words</strong>: “watch me, repeat, sound as you spell”</td>
</tr>
<tr>
<td></td>
<td><strong>S</strong>: ____________________________________________________________</td>
</tr>
<tr>
<td></td>
<td><strong>Sight Words</strong>: “Watch me, repeat say letter name as you spell”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10 min</th>
<th><strong>New Work</strong>: Phon. Aware. / Phonogram/ Rule/ Syllable/Morpheme/Composition skills</th>
</tr>
</thead>
</table>
| 5-8 min| **Stations**:
|       | 1.                                                                               |
|       | 2                                                                                |
|       | 3                                                                                |
|       | 4                                                                                |

| 5-8 min | **Reading**:
|---------|-----------------------------------------------------------------
| 2nd Skill: | **Alphabet/ sight word/ Penmanship/ Sequencing** }
Appendix L

Phonological Awareness: Scope and Sequence

Phonological Awareness Scope and Sequence of Skills

Student’s Name: ________________________________________________________
Practitioner’s Name: _____________________________________________________

<table>
<thead>
<tr>
<th>Phonological Awareness Skill</th>
<th>Initial Test Date</th>
<th>Demonstrated &gt;90% accuracy (date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Segmentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syllable Segmentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syllable Blending</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syllable Deletion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset &amp; Rime Identification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhyme Detection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhyme Production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Identification (initial)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Identification (final)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Identification (medial)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Segmentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Blending</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Deletion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Insertion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoneme Manipulation</td>
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### Appendix M

**Sight Word: Scope and Sequence**

**Sight Word Inventory (Higher Frequency List)**

The following is an inventory of high-frequency non-phonetic words. These words are often referred to as “sight words” as they have to be known by sight for reading and spelling. Following the Orton-Gillingham approach to remediating literacy struggles, determine which words from this list are known for spelling and for reading, then explicitly and sequentially teach each word that is not known for both.

<table>
<thead>
<tr>
<th>Sight Word</th>
<th>Decoded</th>
<th>Encoded</th>
<th>Sight Word</th>
<th>Decoded</th>
<th>Encoded</th>
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<td>I</td>
<td></td>
<td></td>
<td>Love/ dove/</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>above/ shove</td>
<td></td>
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<td></td>
<td></td>
<td>busy</td>
<td></td>
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<td>four</td>
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<td>they</td>
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<td>the</td>
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<td>sure</td>
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<td>was</td>
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<td>every</td>
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<tr>
<td>you</td>
<td></td>
<td></td>
<td>much/ such</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One/ none/ done</td>
<td></td>
<td></td>
<td>here/ there/ where</td>
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<td></td>
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<td>won’t</td>
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<td>too</td>
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<td>among</td>
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<td>which</td>
<td></td>
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<td></td>
<td>could/ would/ should</td>
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<td>full / pull</td>
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<td>rough / tough/</td>
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