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Evaluation of Oral Reading Fluency Outcomes using the Whole-Class Choral Reading Strategy and the Repeated Reading Strategy

By

Dana Abdel Aziz Itani

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THESIS APPROVAL FORM

Student Name: Dana Itani I.D. #: 200702429

Thesis Title: Evaluation of Oral Reading Fluency Outcomes Using the Whole Class Choral reading Strategy and the Repeated Reading Strategy

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The undersigned certify that they have examined the final electronic copy of this thesis and approved it in Partial Fulfillment of the requirements for the degree of:

MA in the major of Education

Thesis Advisor's Name	Richmond Nortcut	[redacted]	DATE: 20 / 04 / 2017 (Day / Month / Year)
Committee Member's Name	Rima Bahous	[redacted]	DATE: 20 / 04 / 2017 (Day / Month / Year)
Committee Member's Name	Mona Nakhoul	[redacted]	DATE: 20 / 04 / 2017 (Day / Month / Year)

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Dedication

This dissertation is dedicated to my support system (my grandmother, parents, husband, siblings, and son).

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I’d like to thank my professors who inspired me and supported me to pursue my graduate studies.

Evaluation of Oral Reading Fluency Outcomes using the Whole-Class Choral Reading Strategy and the Repeated Reading Strategy

Dana Itani

ABSTRACT

Many students across the world and in Lebanon particularly are struggling to read fluently. The aim of this thesis is to deal with these students by using two methods of intervention, The Repeated Oral Reading (RR) strategy and the Whole-Class Choral Reading strategy (WCCR). The study is conducted in a middle socio-economic school in Lebanon on sixty-eight 5^{th} graders. These students are divided into three groups. The first group received the RR strategy intervention, the second group received the WCCR intervention, and the third group was a control group. Pretests were made to create a baseline to the study. Using texts that are specially made for the Curriculum Based Measurement (CBM) tool, students read for one minute each time. The WCPM, word count per minute, was calculated for each student. CBM scores were analyzed and studied. The results show that the students who receive the Repeated Reading strategy scored better than those receiving the Whole Class Choral Reading strategy. Based on these results, a new oral reading fluency strategy was created: "The Repeated Choral Reading Strategy" which was tested on another set of students and showed significant improvement in students' oral reading fluency. This strategy, a combination of two renowned strategies, elicits students' interests toward reading, creates an appetite for oral reading among students, and motivates the struggling readers to read continuously and with enthusiasm.

Keywords: Struggling Reader, Repeated Oral Reading Strategy (RR), Whole Class Choral Reading (WCCR), CBM tool, WCPM, and The Repeated Choral Reading Strategy.

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ORF	Oral Reading Fluency
RR	Repeated Reading
WCCR	Whole Class Choral Reading
CBM	Curriculum Based Measurement
SLL	Second Language Learners

Chapter One

Introduction

1.1 Overview of the Study

Many students across the world and in Lebanon in particular are struggling to read fluently. For instance, Lyon and Moats (1997) stated that one fifth of students in the United States are struggling with reading acquisition. Moreover, there are many factors that affect the fluency of a reader. These factors are related to: "Phonemic awareness, phonics, vocabulary instruction, text comprehension strategies, and reading fluency" (Therrien, 2004, p.252). Most importantly, second language learners seem to struggle more in reading than native speakers. Many studies have proven the effectiveness of two major strategies for improving students' oral reading fluency. These strategies are the Whole-Class Choral Reading strategy (WCCR) and the Repeated Reading strategy (RR). The Whole-Class Choral reading strategy is an effective strategy where all the students in the class read the same text aloud from a specific passage with the teacher (Paige, 2011). Also, a study conducted by McCauley and McCauley (1992) proved the effectiveness of Choral Reading on students' Oral Reading Fluency (ORF). According to Paige (2011), the teacher's role in this strategy is to "model accurate pronunciation, appropriate reading rate, and prosody (expression)," (p. 435). The second effective strategy is the Repeated Reading strategy where the students read the passage two or more times until the given criterion, fluency is met (Therrien, 2004). These two effective strategies have met promising results when used with students of different ages.

It is worth mentioning that students' oral reading fluency can affect their performance in different subject areas not to forget that it can also hinder their self-confidence and self-esteem. For instance, some students feel embarrassed to read in front of others since they mutter and stumble on words. Other students might bully others and make fun of them if they are not capable of reading fluently. Various studies have shown a link between oral reading fluency rates and school dropouts. For instance, Arica (2006) reported on an association among the following: "Poor reading, higher suspension, and higher school dropout rates" (p.359). Believing in the importance of oral reading fluency and its positive effect on other subject areas, this study is designed to better serve the purpose of enhancing second language learners' oral reading fluency. It addresses the following factors: phonemic awareness, phonics, vocabulary instruction, text comprehension strategies, and reading fluency and suggests strategies for intervention.

Many researchers have defined oral reading fluency; for instance, Rasplica and Cummings (2013) defined ORF as "The ability to read connected text quickly, accurately, and with expression" (p.1). Moreover, Hudson, Mercer, and Lane (2000) stated that reading fluently is reading in an accurate way where words are connected in an acceptable rate with proper prosody and expression .In their description of a fluent reader, Hudson et al., (2000) affirmed that fluent readers can read with automaticity for lengthy periods of time, they can maintain their skills even if they haven't practiced on a timely manner, and they have the ability to employ their reading skills across unfamiliar texts. More importantly, a fluent reader has the ability to ignore distractions and sustain a flow of reading (Hudson et al., 2000). In addition, LeVasseur, Macaruso, and Shankweiler (2008) mentioned that the National Reading Panel (NPR, 2000) defined the

reading fluency as "the ability to read text with speed, accuracy, and proper expression (p.3).

Oral reading fluency affects comprehension of texts and passages. If students can't comprehend texts, this will affect their overall average at school. This is especially the case for second language learners (SLL) in Lebanon since subject matter classes such as sciences and math are given in the second language, i.e., English and not in Arabic. If a student doesn't comprehend the questions in the exam either because of his/her English level or his/her oral reading fluency, s/he wouldn't be able to answer the question and will lose time during exams. Therefore it is very significant to assign sessions in the Lebanese curriculum to teach students proper oral reading fluency. Disfluent readers read with difficulty, disregarding punctuation, and reading monotonously without expression (Hasbrouck, Ihnot, & Rogers, 1999; Hudson, Lane, and Pullen, 2005). This kind of reading affects comprehension. Keyes, Cartledge, Gibson, & Robinson-Ervin (2016) stated that there is a strong link between comprehension and ORF.

Moreover, the National Institute of Child Health and Human Development (NICHD) (2000), which is an institute that conducts health-related research, believes that "Learning to read is critical to a child's overall well-being" (Lyon, 1998, p. 14). Hudson et al., (2005) stated that there is an evident relation between fluency and comprehension. Moreover, they identified that each criterion of ORF affects comprehension; for instance, if the reader doesn't read the words accurately, the intended meanings of the text won't be conveyed, thus leading to many misinterpretations of the text. Also, if the reader has weak automaticity, s/he'll find difficulty in interpreting the text. Lastly, reduced prosody may cause confusion and affect the meaning of the text (Hudson et al., 2005).

1.2 Statement of the Study

English teachers across the world and in Lebanon particularly realize that some students have difficulty in reading fluently. Fluency in reading affects comprehension and therefore the student's academic performance in all the subjects taught in this language. Although there's an abundance of articles published on that matter, there are very few studies done in Lebanon about Oral Reading Fluency. Therefore, this study adopted international techniques/strategies to enhance students' Oral Reading Fluency using the Curriculum-Based Measurement as a tool for measuring the ORF of students, hoping that these strategies and measuring techniques would be used with all elementary students across Lebanon.

1.3 Purpose of the Study

The purpose of this study was to help 68 fifth graders from a middle socio-economic school to enhance their Oral Reading Fluency by using two methods of intervention, The Repeated Oral Reading (RR) strategy and the Whole-Class Choral Reading strategy (WCCRS), which are the independent variables of this study. The purpose of the study was to address the different factors that affect the oral reading fluency of second language learners, to scrutinize and test two of the most popular oral fluency reading strategies, and to create a new strategy that leads SLL to meet the international level of proficiency in ORF.

1.4 Research Context

The study was conducted in a private middle socio-economic school in Lebanon on sixty-eight 5th graders. These students were already divided into three groups of almost an equal number of males and females. The three groups were heterogeneous as each class has students of different abilities. The first group had the RR strategy intervention, the second group had the WCCR intervention, and the third group was a control group. Pretests were made to create a baseline to the study. Using texts that are specially made for the CBM tool, students read for one minute. The WCPM was calculated for each student. CBM scores were analyzed and studied. The results were expected to show significance in the outcomes of the ORF of the students who received intervention vs. the students who didn't receive any.

1.5 Research Question

This study attempts to answer the following question:

Is there a difference in 5th graders Oral Reading Fluency outcomes using the Whole-Class Choral Reading strategy, the Repeated Reading strategy vs. no intervention?

1.6 Significance of the Study

Oral Reading Fluency is a key element for comprehension of texts not to forget that it boosts students' self-confidence, which helps them become better readers. Moreover, mastering fluency with respect to a second language learner isn't an easy task; therefore, the study examined the most convenient strategy to be used with Second Language Learners to enhance their Oral Reading Fluency, which will in turn have positive effects on other aspects of students' learning. Some of these factors are students'

comprehension of the text and their confidence and self-esteem while reading.

1.7 Definition of Terms

Prosody

Prosody is indicated by the variations in loudness, duration, pitch, and pausing found in speech (Couper-Kuhlen, 1986). According to Benjamin and Schwanenflugel (2010), loudness is often modified to place stress on a particular word, phrase, or exclamation; Duration can involve rhythm, vowel length, and even the lengthening of an entire word for emphasis; pitch is measured in hertz and is also called intonation or fundamental frequency (FQ); pausing is also used for emphasis, to divide an utterance into its major syntactic components, and to signal turn-taking in dialogue.

Automaticity

Automatic word recognition is essential to fluency's construction and its role in the comprehension of text. Kuhn, Schwanenflugel, Meisinger, Levy, and Rasinski (2010) defined automaticity as having four features which are "Speed, effortlessness, autonomy, and lack of conscious awareness" (p.231). When identifying whether a skill is automatized, these four properties are considered together or separately. Moreover, according to Logan (1997), developing automaticity is critical and deserves our attention; they both acknowledged that the best way to reach automaticity is through practice.

Fluency

Kuhnet al., (2010) defined fluency in Oral Reading as combining "accuracy, automaticity, and oral reading prosody, which, taken together, facilitate the reader's construction of meaning. It is

demonstrated during oral reading through ease of word recognition, appropriate pacing, phrasing, and intonation. It is a factor in both oral and silent reading that can limit or support comprehension" (p239).

1.8 Thesis Division

The thesis is divided into the following chapters: an introduction, literature review, methodology, findings, discussion, and conclusion. Chapter one introduced the study by including the context of the study, purpose, research questions, significance of the study, and definition of the terms. Chapter two encompasses the literature review of Oral reading Fluency, Whole-Class Choral Reading, Repeated Reading, and Curriculum-Based Measurement. Later, chapter three which is the methodology includes the sampling, the participants of the study, instruments used, collection of data, validity and reliability, and the ethical considerations of the study. Afterward, chapter four reports the findings of the study in detail. The fifth chapter embraces the discussion, and the last chapter, concludes the thesis with its the limitations, and the suggestions for further studies.

This latter section included the importance of Oral reading fluency, the purpose of the study, the research context, research question, the definitions of terms, and the thesis division. In the next chapter, a detailed literature review about Oral Reading Fluency, Repeated Reading, Whole Class Choral Reading, and Curriculum-Based Measurement is included.

Chapter Two

Literature Review

In this study, I mastered and applied two strategies to enhance my students' oral reading fluency in an attempt to choose the best strategy that gives improved results in my readers' fluency. The following section represents the literature review of similar studies which discussed Oral reading fluency, Curriculum-based measurement, Repeated Reading, and Whole-class Choral Reading.

2.1 Oral Reading Fluency

2.1.1 What is Oral Reading Fluency? Why is it Important?

An extensive amount of research in the area of reading has been conducted over the past two decades (for instance, Begeny, Krouse, & Mitchell, 2009; Begeny, Laugle, Krouse, Lynn, Tayrose, & Stage, 2010). Teaching students to read is a major goal of education; however, many students are struggling in learning basic reading skills (Therrien, 2004). As stated by Therrien (2004), the National Institute of Child Health and

Human Development (2000), defined "five important reading skill areas: phonemic awareness, phonics, vocabulary instruction, text comprehension strategies, and reading fluency" (p. 252). Being one of the five reading skill areas, oral fluency has to be taught in schools in order to enhance students' reading skills. Although teachers in the United States are working on students' Oral Reading Fluency, many elementary students are not capable of reading "age-appropriate material fluently" (Begeny et al., 2010, p. 211). Many authors defined Oral Reading Fluency (ORF) in similar ways. One of the

definitions stated that ORF is looking at the following elements: *accurate* reading at a conversational *rate* with suitable expression or *prosody* (Hudson, et al., 2000). Moreover,

Rasinski (2006) provided the following definition of ORF: "It deals with reading words accurately and with appropriate speed, and it deals with embedding in one's voice elements of expression and phrasing while reading" (p. 18). Besides, the National Reading Panel (2000) defined ORF as "the ability to read text quickly, accurately, and with proper expression" (p.3). Also, it is important to be a fluent reader because fluency affects comprehension (Hudson et al., 2005). The fluent reader is the reader who can perform well and recall his/her skills even if s/he hasn't read for a long time; this reader is capable of reading without being distracted in a smooth, effortless style (Hudson et al., 2005). Prosody is one of the key elements to a successful fluent reader. Prosody is the rhythm, tone, and expression in a speech. Prosody is describes as 'the music' of oral language (Hudson et al., 2005, p.705). Hudson et al., (2005) listed the features of prosody: "Variation in pitch, stress patterns, and duration" (p. 705). These features color the text and make it sound as if it's musical. Goering and Baker (2010) mentioned the

Theory of Prosody which is attributed to Schreiber (1991) where he defines Oral Reading

Fluency as "smooth and expressive" (p.161). Goering and Baker (2010) also stated that in this theory, the teacher has to look at "stress, intonation, and duration" when listening to the reader, and that there are six marks that the evaluator needs to take into consideration (p.62). These marks are: "Pausal instructions, length of phrases, appropriateness of phrases, phrase-final lengthening, terminal intonation contours, and

stress” (p. 62).

Leidholdt (1988) defined Oral Reading Fluency in the simplest way and how students see it; she mentioned that as a primary teacher she noticed how her students observed each other and decided that a good reader is the one who doesn't stumble on words and on the contrary the "poor readers" are the ones who read slowly and stumble on words. The conclusion that she reached was based on a very simple tool of assessment which is observation. By observing readers you can tell whether they are fluent or not. Rasplica and Cummings (2013) agreed with all the authors mentioned before and stated that Oral Reading Fluency is the skill of reading words that are connected without hesitation. Moreover, they mentioned that when reading, "there is no noticeable significant cognitive effort in decoding the words" (Rasplica & Cummings, 2013, p. 1). They also stated that there is a proven connection between fluency and comprehension since students who read fluently comprehend the text easier than those who read reluctantly and are more likely to make sense of what they're reading (Rasplica & Cummings, 2013). In agreement with Rasplica and Cummings, Walley (2016) stated that teachers are conscious of the fact that comprehension highly depends on fluency and fluency is one of the ways used to enhance students' comprehension.

2.1.2 Struggling Readers

Problematic reading fluency emerges not only from young age. There are also struggling readers at the secondary level which is even more problematic since they most probably have difficulty in all four areas of reading: "Comprehension, fluency, vocabulary, and decoding" (Archer, Gleason, and Vachon, 2003, p. 89). Although struggling readers have

difficulty in almost all the areas of reading, decoding and fluency are the two major areas under which the other two rely on. In other words, and as mentioned by Archer et al. (2003), "decoding and fluency are the critical foundation on which all other reading skills are laid" (p. 89 - 90).

2.1.3 Strategies for Enhancing Oral Reading Fluency

From as early as 1981, there has been research about enhancing Oral Reading Fluency. Laffey (1981) mentioned that schools usually emphasize the teaching of reading in grade one when students begin to learn how to read; however and unfortunately they deemphasize on reading in later classes. Laffey (1981) stressed on the significance of dedicating enough time for teaching Oral Reading Fluency using different strategies. According to Laffey, there are many Oral Reading Fluency instructional practices; however, for students' benefit these practices should have a purpose and a context to show effective results in students' reading. The first strategy he mentioned is the Choral Reading where students read together in groups. He noted that this is a very enjoyable strategy for students and encourages students to read confidently especially the poor reader. Since Choral Reading is a strategy where students chant, shout, read fast, read with exaggerated expression, then the less-confident reader will have the courage to read and imitate the better readers which will eventually lead to an enthusiasm towards reading for both the fluent and struggling readers (Laffey, 1981). Moreover, Laffey mentioned the Creative Drama as another strategy that enhances Oral Reading Fluency; He said that it is a very useful strategy under which the following may be included: "Pantomime, dramatic play, puppet show, and story dramatizations" (p. 473) . This strategy has proven its success since the readers know that they'll be acting the script;

therefore, they pay very close attention to all the details of the text: the pauses, the words, and the punctuation marks; leading to better fluency and comprehension at the same time. More importantly, Laffey mentioned that Creative Drama is very successful with "culturally different students" or SLL (Laffey, 1981). Lastly, he mentioned the Reader's

Theater and described it as a way to arouse students' interest in reading fluently; he noted that "The use of gestures, facial expressions, and vocal changes" assists students in reading fluently (Laffey, 1981, p.473).

Although the strategies mentioned earlier are old, they are still used nowadays and proven to be successful. Laffey also mentioned the peer-assisted strategy which is still used in schools. Rasplica and Cummings (2013) reported on the Peer-Assisted learning strategy and defined it as having two students reading a passage where one of the students chooses to be the coach and the other student decided to be the reader, they read to each other and give corrective feedback and then change the roles. Secondly, Rasplica and Cummings (2013) mentioned the Repeated Reading strategy under which students read the passage repeatedly until they become fluent enough. Thirdly, Rasplica and Cummings (2013) discussed the Tape-Assisted Reading which is when a student listens to a tape-recording of the passage and reads accordingly; this strategy could be done individually or with the teacher's help. Lastly, they talked about the Slide and Glide strategy where the teacher starts reading the sentence, and the student continues reading it until they read the whole passage (Rasplica & Cummings, 2013).

Mastropieri, Leinart, and Scruggs (1999) mentioned the following strategies: the Repeated Reading, Classwide Peer Tutoring, Using Computers, and Previewing (1999). The aim of

Classwide Peer Tutoring (CWPR) is to increase the amount of time where students are 'individually' engaged in reading; in the peer tutoring approach one half of the students will be engaged in reading and the other half will be engaged in monitoring the progress of the latter (Mastropieri et al., 1999). For instance, the teacher pairs a mediocre reader with a better one, and a slow reader with a fast one, and then the teacher models for the students how they should be the tutors and the tutees and gives them detailed instructions about giving feedback and scoring reading by the end of the week the pairs will be changed (Mastropieri et al., 1999). According to Mastropieri et al. (1999), this strategy has proven to be efficient in making progress in students' Oral Reading Fluency. In addition to the above strategy, Mastropieri et al. (1999) mentioned that the Previewing strategy is an intervention strategy where students are allowed to preview the passages before reading them. The authors have stated that this strategy is similar to the Repeated Reading strategy since here the teacher models reading for the student for one minute, explains the procedure, and then asks him/her to read for a minute as she records the errors. Moreover, Mastropieri et al. (1999) have mentioned that the Computer-Assisted Instruction as an effective intervention strategy for enhancing Oral Reading Fluency; the strategy is based on the use of the Hint and Hunt program that includes a game-like activity that encourages users to read with speed.

In a further study about Computer-Assisted Intervention (CAI), Keyes, Jacobs, Bornhorst, Gibson, and Vostal (2015) studied the effects of a computerized reading intervention program on the Oral Reading Fluency of at-risk urban first graders, and in their study they stated that CAI is one way of assisting dysfluent readers in enhancing their fluency rates; the five authors cited that "recently, CAI has been used to improve various reading skills" (Cassady & Smith, 2004; Gibson, Cartledge, & Keyes, 2011; Gibson, Cartledge, Keyes, &

Yawn, 2014; Keyes, Cartledge, et al, 2016; Lee & Vail, 2005; Macaruso & Rodman, 2011; Mitchell & Fox, 2001; Torgesen, Wagner, Rashotte, Herron, & Lindamood, 2010) (p.425 - 426). Furthermore, Torgesen et al., (2010) have noted that Computer-Assisted Instruction is capable of enhancing students' fluency due to "its embedded instruction, practice, cost effectiveness, and high fidelity"(p.42). The authors stressed on the importance of having teachers lead the process for better results in students' fluency.

These are some of the strategies used to enhance students' Oral Reading Fluency, however, now we'll be addressing the ways of assessing students' Oral Reading Fluency (ORF).

2.1.4 Assessment of Oral Reading Fluency

Oral reading fluency has always been assessed using traditional ways in schools. The teacher decides that the student deserves a certain grade and gives him/her that grade. Later on, teachers started using rubrics and ORF criteria as a base for giving the student a certain grade. Until, some schools started using the WCPM and CBM-R for measuring students' oral reading fluency.

Hudson et al., (2005) noted that teachers observing their students while reading ad paying close attention to all the details is the best way of assessing students' Oral Reading Fluency. In addition, they stated that the teacher/observer should be aware of the following aspects: "word-reading accuracy, rate, and prosody" (p.705).

Moreover, according to Coulter, Shavin, and Gichuru (2009), the people in charge of assessing students' Oral Reading fluency which are the teachers should be aware of the guidelines of ORF assessment and how to administer it. They also mentioned that teachers should be well trained to assess the ORF of students.

Curriculum-Based measurement is a widely used form of assessment in schools since it measures students' oral reading fluency in an accurate manner and it makes it easier for the teachers to assess readers' fluency.

2.1.5 Assessing Accuracy

According to Hudson et al., (2005) measuring the accuracy of words while reading can take a number of forms; counting the number of errors per 100 words could be one way of assessing word-accuracy of readers. Another way could be by " a running record and miscue analysis" as mentioned by Hudson et al., (2005, p.705) and cited from Clay (1984,1993). These observations are evidence of errors that teachers can use to find solutions for the problems that are found. Moreover, Hudson et al. (2005) explain that it's the job of the teacher to recognize which strategies the reader/student is using while reading and which strategies he/she is failing to use. Based on that, Hudson et al. named the following strategies: "phonemic blending, guessing based on context, and contextual analysis," (p.75). When the teacher notices one or more of these strategies misused, she/he should intervene to give further instruction in order to improve reading fluency.

2.1.6 Assessing Rate

Hudson et al., (2005) stated the following: "Measuring reading rate should encompass consideration of both word-reading automaticity and reading speed in connected text" (p. 705). Automaticity can be assessed by a test for sight-words or a test to know the decoding rates of a reader; measuring the reader's speed is done via timed-readings where the reader is given a text and the instructor/teacher counts the number of errors done within that time

and the collected data is organized in a table/chart (Hudson et al., 2005).

The following are steps for leading timed-reading (Hudson, Lane, and Pullen ,2005,

p.705, 706):

" 1. Record a baseline rate on a new passage by having the student read the passage without knowing that he or she is being timed. The number of words read correctly for that minute is recorded as the baseline.

2. Note the errors as the student reads. After the reading, discuss any errors and work on them by rereading the parts that were difficult or by doing word-study activities.

3. Set a goal for the next reading by asking the student to read five or six more words, or maybe another line. The goal should be a reasonable one that can be attained within the next few attempts. If the student made three or more errors in the first attempt, the goal may be to decrease the errors and keep the correct word per minute (CWPM) the same.

4. Record the goal on the graph with a highlighter.

5. Time the student again for one minute and record the CWPM and errors.

6. Discuss the errors; set another goal and repeat the process.

7. Timings should be done at least three times per week in order to build consistency.

8. When the student levels off and is no longer increasing the CWPM, it is time to select a new passage.

9. Select a new passage and begin the process again by taking a baseline reading.

10. Once students become familiar with the procedures involved in timed readings, they can record their own progress on the timing chart, record an audiotape of their own oral reading and chart their progress, or work in pairs to listen and record the reading rate

and accuracy of their peers."

2.1.7 Assessing prosody

Hudson et al., (2005) stated that assessing prosody can be done in one way only which is observing the reader while reading connected-text. Moreover, they declared that during the reading of a text, " the teacher can listen to the student's inflection, expression, and phrase boundaries" (p707). Moreover, Hudson et al. mentioned that through observing the reader, the teacher might notice the following:

- Students might stress on certain words vocally.

- The tone and intonation of a student's voice might be recognized (the ups and downs). -The tone of the student's voice changed at punctuation marks.

- The tone of the student has changed to show the state of feeling of the character ; for instance : sadness, happiness, , anger etc.

-Students stopped at phrase boundaries.

It was also mentioned by Hudson et al. that reading comprehension of the reader could be triggered through assessing and observing the reader's prosody; it also enhances listening comprehension.

2.1.8 Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

Kuhn, Schwanenflugel, Meisinger, Levy, and Rasinski (2010) stated that DIBELS is a tool used to measure the number of errors done within a minute time; it's a widely used tool in the United States, it's used over 15,000 schools. This test helps the teacher in tracking students' development in Oral Reading Fluency. Moreover, DIBELS is

concerned with automaticity in phonemic awareness, decoding, letter recognition, and fluency (Kuhn, et al., 2010). Moreover, Kuhn et al. agreed that CBM-R and DIBELS both are good indicators of Oral Reading Fluency; both have developed benchmarks that help teachers in spotting students who are struggling to read and need intervention.

2.1.9 Timed-Reading & Curriculum-Based Measurement

Coulter, Shavin, and Gichuru (2009) stated that Curriculum-Based Measurement of Oral reading fluency is very helpful since it foretells reading failure and success. Teachers using the CBM-R are most likely able to intervene with intervention strategies to prevent students from becoming dysfluent readers and from failing in school.

Furthermore, assessment of math and science and even grammar is easy and done through exams and compared to class-level standards, however, it's a different story with Oral Reading Fluency. Therefore, Starch (1915) mentioned that it's necessary to have a way to measure the efficiency of all subject areas to make it possible for a qualified person to measure any student's level in any classroom across the country.

For that reason, the Curriculum-Based Measurement of Oral Reading Fluency was the tool used in the study to measure students' Oral Reading Fluency progress. Having chosen the tool for assessing students' ORF progress, I'll mention some of the studies that were conducted to measure Oral Reading Fluency levels of diverse students from different backgrounds and different age groups.

2.2 Strategies for Enhancing ORF

Many reading programs were designed to improve diverse factors that affect reading. However, a reading program that lacks strategies for enhancing oral reading fluency isn't considered complete (Henk, Helfeldt, & Platt, 1986). Henk et al. (1986) also indicated that: "no amount of comprehension training can compensate for a slow, labored rate of reading" (p.278).

Masteropieri, Leinart, and Scruggs (1999) suggested that repeated reading, peer-mediated instruction, computer-guided practice, and previewing are four of the most researched interventions. In fact, Repeated Reading increases oral reading fluency (Moyer, 1982; Samuels, 1979, 1987). It is an old intervention strategy but is still widely used nowadays.

2.3 Factors that Affect ORF

Oral reading fluency is a sum of many skills performed simultaneously. Oral Reading Fluency strategies are taught to students since Kindergarten before they start reading. For instance the concept of prints which is when students learn how to hold the book and look at the pictures to make sense of the story. Also, when they identify the front and back cover. Moreover, students are exposed to books. The more they exposed to books and reading, the more fluent they become. Parents at home play a major role in helping their children in becoming fluent readers. This is accomplished when parents read to their children at home and encourage them to love reading and practice it often. Furthermore, phonics is a method that stresses on the relationship between sounds and

letters. Sight words also affect fluency. The more the student knows sight words, the more fluent he/she becomes.

Lyon (1998), states that mastering phonics skills is central to reading. Moreover, he also specified that word recognition and decoding are fundamental to reach automaticity, and if the reader fails to read fluently, remembering what has been read and making sense of the text will be difficult; hence, the main goal of reading instruction won't be met (Lyon, 1998). Therefore, there are prerequisite skills to reach the ultimate goal of reading instruction. The goal, as stated by

Lyon (1998), is that: "children should understand and enjoy what they read," (p. 16). If readers aren't fluent enough, that goal won't be met. Consequently, more effort should be put on enhancing students' oral reading fluency.

2.2.3 Consequences of slow ORF

Mastropieri et al., (1999) described lack of reading fluency as the most common characteristic of problem readers. Moreover, they stated that dysfluency hinders accepted reading performance in diverse ways.

Mastropieri et al., (1999) stated that "reduced reading rate" happens when students read lesser than their friends during the same amount of time; When this happens it means that the students who read less, had less exposure to the text and will most probably remember and understand less of the text than those who read more. They also added that students with "slower reading rates" are exerting more effort into reading and using cognitive skills to do so while those reading fluently aren't; For that reason those reading slower will have less resources to process meaning while reading (p.278).

Therefore, maintaining good oral reading fluency is crucial to comprehension of any text, and if not mastered will affect the reader in diverse ways.

2.3 *Repeated Reading*

As the name signifies, the repeated reading strategy is having a student repeat reading the passage two or more times until he reaches a certain fluency level (Therrien, 2004). A lot of studies were conducted on the Repeated Reading strategy, and they have shown significant improvement in students' Oral Reading Fluency levels. Twenty-four studies

were scrutinized by Chard, Vaughn, and Tyler (2002); these studies talked about certain components of reading interventions, and these studies have shown noteworthy improvement in oral reading fluency and comprehension for students with learning disabilities (Begeny et al., 2010). Another study by Therrien (2004) proved the usefulness and efficiency of the RR strategy for enhancing different types of reading abilities; Therrien also found that the RR strategy works for adults as well. The first intervention was implemented by Samuels (1979) where he measured the results after the intervention, RR strategy, which showed significant improvement. As stated by Hapstak and Tracey (2007), the method of Repeated Reading was conducted by many researchers and the results of all these studies have shown significant improvement in students' oral reading fluency levels (p 317) and have proven the effectiveness of the Repeated Reading strategy. One significant study was conducted by Hapstak and Tracey (2007) where four first-grade students were selected. One of these students was a special student, the other student was a poor reader, the third was an English language

learner, and the fourth was a general education student; this study was able to prove that the RR strategy has shown significant improvement in the Oral Reading Fluency outcomes among the four diverse learners (Hapstak & Tracey, 2007).

In conclusion, many studies were conducted to prove the significance and usefulness of the Repeated Reading strategy on the outcomes of ORF on students of different abilities and levels.

2.4 Whole-Class Choral Reading

Unlike the Repeated Reading strategy, the Whole-Class Choral Reading strategy (WCCR) hasn't been widely used nor studied. However, it has shown significant improvement in students' Oral Reading Fluency outcomes, for students respond to it favorably because of its choral aspect. WCCR is defined as "the oral reading that makes various voice combinations and contrasts to create meaning or to highlight the tonal quality of the passage" (McCauley & McCauley, 1992, p 527). The Whole-Class Choral Reading strategy involves all the students in the class, where they read aloud the same passage with their teacher (Paige, 2011). The teacher here models the important characteristics of a fluent reader; "accurate pronunciation, appropriate reading rate, and prosody" (Paige, 2011, p. 435). Moreover, the teacher's role is to provide her students with feedback on their reading through explaining and modeling problematic phrases and words (Paige, 2011). The passage can be read more than once until the students reach the expected proficiency level. According to Paige (2011), the studies conducted on WCCR propose that readers become more fluent after the intervention, and that their

decoding ability is enhanced. One of the strengths of this strategy is its flexibility in choosing the text, and that it can be implemented on students of all grade levels. The text can be an interesting trade book, short story, poems, historical speeches, or documents (Paige, 2011). The text should be long enough to cover a two-minutes reading.

Walley (1993) explains the procedure of the Whole-Class Choral Reading in an engaging and different way where he ensures that all the students are engaged in the process since many teachers agree that some students pretend to participate in the WCCR through moving their lips without reading and therefore some teachers don't use this strategy. Walley (1993) explained that the teacher models the story/passage to the students, and then asks them to sit in pairs and read to each other. Once all the students

are ready, they chant the passage together. Moreover, Walley (1993) mentioned that choosing the passage for the Whole-Class Choral Reading is challenging since the text should have rhythm. He recommended the use of cumulative stories since they have a minimum of a plot and a maximum of a rhythm and rhyme (Walley, 1993).

Paige (2011) mentioned a Whole Class Choral Reading strategy that includes repeated reading and is similar to the new strategy suggested by me in the discussion section of this paper. Paige (2011) talked about a study that involved 54 students who are fourth graders. This study focused on six principles which are as follows:

1- fluent reading modeling by the teacher

2- corrective feedback provided to students by the teacher

3- reader-support is provided by the teacher

4-the use of repeated reading

5- students' being cued regarding phrasing

6-Independent practice for each student

According to Paige (2011) the study showed high performance levels in students and showed progress.

Furthermore, Marble, (1937) conducted an experiment in Choral Verse-Reading with

her junior students and described the experience as one in a kind. Her students applied this strategy to their literature course that was dry at first; however, after she introduced the Choral Verse-Reading students enjoyed the literature course and experienced
unforgettable sessions.

Marilyn (1969) has another approach to Choral reading! Marilyn divides the groups of students into "light voices ranging down to dark voices " just like a singing choir where the teacher is the conductor. Marilyn describes his experience as successful and states that the students enjoyed the Choral reading sessions (p. 436)

Georing and Baker (2010) stated that although the Whole-Class Choral Reading has advantages, it also puts pressure on the struggling readers. They claimed that Policy makers should continue to fight for more attention to adolescent literacy, and

teachers should focus on struggling readers" (p. 75). They also stated that Whole-Class Choral Reading and dramatic oral reading should be taught in secondary classes (Georinds & Baker, 2010).

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In conclusion, the Whole-Class Choral Reading has been used by many teachers and experimented by many researchers and has led to remarkable enhancement in students' Oral reading fluency levels and outcomes.

2.5 Curriculum-Based Measurement

Curriculum-Based Measurement is a tool used to measure different subjects. In this study, I used it to measure the Oral Reading Fluency outcomes. As stated by Abu Hamour (2014),"CBM is a set of standardized and well-researched procedures for assessing and monitoring students' progress in reading, math, spelling, and writing" (p.16). Moreover, it's defined as "an assessment process designed to give teachers feedback on the effectiveness of their instruction in producing academic learning gains" (Nese, Biancarosa, Anderson, Fei Lai, Alonzo, & Tindal, 2011, p. 888).

CBM can be used in a number of different ways, but is primarily used in the Response to Intervention (RTI) framework for benchmark screenings and progress monitoring (Deno, 2003; Keller-Margulis, Shapiro, & Hintze, 2008). Educators can administer a universal benchmark screening assessment to identify students at-risk for low achievement, and also monitor the progress of students targeted for intervention.

Curriculum-Based Measurement was later used to assess the Oral Reading Fluency of students, and many studies were conducted using the CBM as a tool for assessing

ORF. Research has been conducted to prove the validity of CBM for measuring ORF (Hunley, Davies, & Miller, 2012, p. 2) CBM is administered over months, weeks, or entire academic year to prove the effectiveness of the intervention, and CBM provides both quantitative and qualitative data (Hunley et al., 2012). Furthermore, the data that resulted from the CBM could be used by the teachers to monitor her students' progress, and then she can plan effective instruction to reach a desired goal (Hunley et al., 2012).

Furthermore, Christ, Zopluoglu, Long, and Monaghen (2012) mentioned that CBM-R is used for four main reasons. The first reason is that it's considered a valid and reliable tool. The second reason is that it's widely used because of its easiness and proven efficiency with both teachers and students. Third, educators have found it to be a practical tool for assessing ORF. Forth, it's an inexpensive tool. Moreover, Christ et al., (2012) stated that CBM-R is a very efficient tool for solving problems in Oral Reading Fluency and for intervention in classrooms.

Jenkins, Graff, and Miglioretti (2009) examined the amount of measurement needed to yield valid and reliable results of CBM-R. After conducting their study on 41 students, across 10 weeks, they concluded that four scores for the baseline give better and more accurate results than one score for the baseline, and that the more frequent the scores are taken, the better the results. Therefore, in this study three scores were used as a baseline and scores were taken frequently.

CBM-R is widely used and is proven to enhance the level of students in achievement tests in reading as proven by Yeo (2010) who made a multilevel meta-analysis to examine the relationship between CBM-R and the statewide achievement tests in Reading. In his meta-analysis he concluded the following:

" The evidence supports interpretation that CBM is valid for predicting the performance on statewide reading tests in reading," (418).

CBM-R was chosen for this study since it's valid, reliable, and widely used abroad , and I hope that it'll be used in Lebanese schools more often to have accurate and measurable scores for students' Oral Reading Fluency.

2.6 WCPM

The ‘word count per minute’ means the number of words read during 60 seconds. This is mainly used with CBM of Oral Reading Fluency where students read from a passage for 60 seconds; the instructor or the teacher calculates the number of words the students read and the errors s/he made. Then the teacher/instructor subtracts the number of errors from the total number of words read to get the WCPM score.

2.7 An Intervention Using WCCR and RR Strategies

Paige (2011) conducted a study whose purpose is to implement the Whole-Class Choral Reading strategy using narrative texts in the format of Repeated Reading to enhance Oral Reading Fluency in sixth graders who are struggling to read fluently. Paige (2011) applied this strategy on 112 sixth graders and trained four teachers. The intervention period was 6 weeks. The teacher reads the passage loudly, practices unfamiliar or hard words with the students, and then they read in unison. Later, the teacher will listen to students' mistakes and will provide feedback to all the class. The next day, the teacher will read the passage out loud with the students for another time

and this is how it's considered Repeated Reading. The results of the implementation of the WCCR with the Repeated Reading strategy which is called: "16 Minutes of Eye-On-Text" strategy showed improvement in students' phonological decoding and oral reading fluency. Moreover, the teachers mentioned that the students enjoyed the experience and that they, the teachers, thought that the implementation of the strategy is easy.

The section above summarized the literature review of Oral Reading Fluency, Repeated Reading, Whole-Class Choral reading, and Curriculum-Based Measurement. The section also mentioned a number of studies and interventions done to enhance oral reading fluency of students. However, it's important to mention that I haven't found a study where an intervention was done using the two strategies of Repeated Reading and Whole-Class Choral Reading separately with a control group. Therefore, this study is considered the first study that shows the results of each of these strategies. In the next chapter, the methodology of this study is mentioned.

Chapter Three

Methodology

In order to answer my research question: "Is there a difference in 5th graders Oral Reading Fluency outcomes using the Whole-Class Choral Reading strategy, the Repeated Reading strategy vs. no intervention?" I decided to follow the quasi-experimental design where I compared two Oral reading Fluency intervention strategies using the Curriculum-Based Measurement technique to compare the outcomes. This chapter includes, the research design, the sampling, the participants, the setting, the instruments used, how the data was collected, and how the data was analyzed. Moreover, this chapter also encompasses the reliability and validity of the study and the ethical considerations.

3.1 Method

This research is considered an action research since the purpose is to plan, implement, and evaluate an intervention used to improve the practice of Oral Reading Fluency in 68 fifth graders. Action research helps in solving problems and it expands scientific knowledge that is based on evidence (Hult &Lennung, 1980).

In addition, this research study follows the quasi-experimental design which is very similar to the experimental design; however, lacks random assignment. Reichardt (2009) stated that there are four kinds of quasi-experimental design and the first type is the:" One Group, Pretest, Posttest Design," (p.48). This is the kind used in this study. Reichardt stated that in the One Group, Pretest, Posttest Design, a pretest is taken before a treatment is introduced and after a while a posttest is taken. The difference between the pretests and the posttest tells the size of the effect of the intervention (Reichardit, 2009)

White and Sabarwal (2014) stated that the quasi-experimental design aims to test causal hypotheses. In my study, the aim of this design is to test which Oral Reading Fluency strategy yields better results. Moreover, White and Sabarwal (2014) also stated that this type of design uses intervention which is usually in the form of a treatment that is evaluated to check if it met its objectives. This kind of design doesn't use random sampling. In this design , we have a treatment group and a comparison group; The comparison group is the group where the intervention is implemented whereas the treatment group is the control group where no intervention takes place (White and Sabarwal,2014). In my study, I have two comparison groups which are Grade 5 A and Grade 5B where the intervention of the two Oral Reading Fluency strategies is

implemented, and the control group of this study is Grade 5 C where no intervention takes place.

In this design, my main aim is to check if the independent or dependent variable has affected the outcome by comparing two individuals or two groups. This design allows me to compare homogeneous sub groups and to compare sub groups that are clustered according to a particular variable. In the case of this research, the sub groups are the three fifth grade classes: Grade 5A, 5b, and 5C. The sample of students is divided into three groups. Two groups received intervention, whereas the third group didn't receive intervention and was considered the control group. Two different Oral Reading Fluency strategies were implemented in the first two groups. After the end of the intervention period, results were compared and analyzed.

3.2 Sampling

All researchers are concerned about the size of their sample since it hinders the reliability of the study. According to Cohen, Manion, and Morrison, (2007), there's no definite answer; however, they state that "A sample size of thirty is held by many to be the minimum number of cases if researchers plan to use some form of statistical analysis on their data, though this is a very small number and we would advise very considerably more," (p.101). In this study, the sample is 68 fifth grade students.

Moreover, Cohen et al. (2007) mentioned that access to the sample is a key factor in the study, and researchers need to make sure that the access is not only permitted, but also practicable. For that reason, my sampling technique was the convenient nonrandom sampling. The convenient nonrandom sampling technique is defined by Cohen et al (2007) as: " Convenience sampling – or, as it is sometimes called, accidental or

opportunity sampling – involves choosing the nearest individuals to serve as respondents and continuing that process until the required sample size has been obtained or those who happen to be available and accessible at the time" (p.113-114). Nonrandom sampling is any sampling method where the probability of selection cannot be determined and the population of the study has no chance of selection.

Therefore the sampling technique adopted for this study was a convenient nonrandom sampling. The sampling was considered convenient since the school and participants were already available. The students were already divided into three homogeneous sections.

3.3 Participants and Setting

Three grade five sections, 68 students, from the same school were the sample of this study with students' ages ranging between 10, 11 year-old females and males. The first group had 23 students, 12 males and 11 females, and this group was called *grade 5A* .The second group also had 23 students, 12 males and 11 females as well, and this group of students was called *Grade 5B.* The third group had 22 students, 11 males and 11 females, and I called this group *Grade 5 C*.

Table 1: Distribution of Fifth grade students

Sections	Number of students	Males/ Females
Grade 5 A	23	12 males and 11 females
Grade 5 B	23	12 males and 11 females
Grade 5 C	22	11 males and 11 females

They were heterogeneous classes since the administration and teachers classified them according to their abilities and overall averages from the previous school year. Each group has students of different abilities: high-achieving students, average students, and low-achieving students. This school is located in the suburbs of the Lebanese capital, Beirut. Students of this school belong to the middle socioeconomic status. Students are taught 8 sessions of English per week. The three groups receive the same instruction, follow the same curriculum, and use the same teaching strategies in all sections. Students of this school are taught five English subject areas, which are: spelling, grammar, writing, oral fluency, and reading. Oral fluency is taught using traditional ways where the teacher models and reads the text to her students. Students read the text silently in class and then read it to the teacher. The teacher grades the students based on their intonation, accent, and fluency. Grades are distributed over 20, and the maximum grade given should be 17. For the purpose of the study, two groups received intervention in the form of two different Oral Reading Fluency strategies, and the third group continued to receive the regular Oral Reading Fluency (ORF) teaching by their teacher. Teachers of these classes use the same method of instruction and integrate technology in their classrooms. Oral Reading fluency was taught gradually on a daily basis to all 68 students in the three groups. One session per week was dedicated to measuring ORF using the Curriculum-Based measurement, CBM, tool.

There are different factors that affect the oral reading fluency of Second Language Learners. All students were observed during ORF sessions and I took notes of students' behavior, background, abilities, self-confidence, and self-esteem. The study was held in a

middle-socioeconomic school that incorporates students of different backgrounds. The majority of the students belong to the middle class; however, a lower percentage comes from low socioeconomic and high-socioeconomic backgrounds. The majority of the students speak Arabic at home and in school except during English sessions. However, some students especially those whose parents are highly educated speak English at home. The students whose scores were the lowest prior to intervention are new students who came from different schools. These students had low self-confidence since they didn't develop friendships at the time of the baseline testing, and they had low self-esteem especially during English sessions because they weren't fluent readers nor speakers.

Students' self-esteem and self-confidence was noticed from observations. On the other hand, the students who scored the highest during baseline testing come from high socioeconomic backgrounds, are popular and have many friends, speak English at home, and have high self-confidence and self-esteem. Moreover, they were challenged by the Word Count per Minute (WCPM) scores and were very enthusiastic during ORF sessions.

I am an English teacher who taught for four years at this school, I noticed that students who speak in English at home, read stories for pleasure at home, and are followed-up by their parents on a regular basis where they practice reading at home, are the ones who scored highest during CBM testing.

3.4 Instrument

Curriculum-Based Measurement (CBM)

As stated by Abu Hamour (2014),"CBM is a set of standardized and well-researched procedures for assessing and monitoring students' progress in reading, math, spelling,

and writing," (p.16) The CBM tool is used here to measure the outcomes of ORF of the students. Using the Word Count Per Minute (WCPM), the instructor asks the reader to read for one minute, and then the instructor subtracts the number of errors from the number of words read. CBM highlights measurement over a specific period of time to measure students' progress. Passages from the new *Wonders* Macmillan McGraw Hill series are already designed for CBM, they are numbered according to the Word Count Per Minute (WCPM).

3.5 Data Collection

In a casual-comparative research design, the methods of collecting data don't differ from any other research design. Questionnaires, pretests and posttests, various assessments, and behavior observations are methods for collecting data. In this study, pretests and posttests were used.

I got the approval of the administration of the school after presenting the proposal of the study to the school's committee. Followed by that, a consent describing the study was signed by the parents of the participants. The two teachers responsible for implementing the interventional ORF strategies received training by their coordinator about using CBM and the RR and WCCR strategies. Then, they attended a workshop on CBM of ORF for two days.

During the first term, students did two Oral Reading Fluency tests from the Woodcock-Johnson III Tests of Achievement. Then, they were assessed using CBM for three times, these three WCPM scores were the baseline of the study. Intervention was implemented for an estimate of 1,200 minutes, 15 minutes per day in each group, for grade 5 A&B.

On the other hand, grade 5C received traditional teaching of ORF. During the third term, three CBM scores were taken and then used to compare the results before and after intervention.

3.6 Data Analysis

All data were analyzed using Microsoft Excel. The three CBM scores taken at the beginning of the study were included, and an average was calculated for each student. These averages were the baseline of the study, and they were later used to compare with the end results. The three scores of the CBM after intervention were also enlisted in Excel, and an average was calculated. Each group was studied separately. For the first group with the RR intervention, the averages were compared and the percentage of improvement was calculated. The same procedure was followed with the second and third groups. After calculating the percentage of improvement in ORF outcomes, the percentages of the two interventions were compared to show which strategy showed more progress. Then, the results of groups 1 and 2 were compared to the results of group 3, control group, to show the significance of implementing an ORF strategy to improve students' fluency. The Difference in Differences (DID) analysis strategy was used to compare the changes in the outcome over time between the two groups with intervention and the control group. According to White and Sabarwal (2014), the DID : "gives stronger impact estimate than single difference, which only compares the difference in outcomes between treatment and comparison groups following the intervention. Applying the DID method removes the difference in the outcome between treatment and comparison groups at the baseline" (p.9).

Based on the results, the school adopts the best ORF strategy to implement in all classes for the upcoming school years.

3.7 Reliability and Validity

According to Salkind (2010), the sampling is a threat to the study's validity since two or more groups of participants are compared where they are defined according to the independent variable. In order to strengthen the research design and counter the threats to internal validity, the researcher must choose to select homogeneous subgroups which is the case in this research study. The sample in this study is homogenous with almost the same number of students in each subgroup, the same number of females and males, the same ethnic group, and socio-economic background.

Internal validity is concerned with the validity of the findings of the study. The validity's main purpose is controlling extraneous factors that may affect the results and the outcome of the research. In this case, we need to control the variables that may affect students' Oral Reading Fluency. Oral Reading Fluency improves through practice ; therefore, I made sure that my students weren't practicing to read at home during the intervention period; Therefore, the study's internal validity is high. I stressed that through parents' meetings and talking to students.

When it comes to external validity, which is mainly concerned with real life applications and whether the results can be generalized to a larger population; my study is done in one school and in one grade level, grade five. Which means that we can't generalize the results since my students come from the same socio-economic background and my participants were conveniently chosen; therefore, the results only benefit the school in

which the study took place and the results can also benefit similar schools in Lebanon (of the same characteristics). However, in order to generalize such results, a comprehensive study that includes all regions of Lebanon and all different kinds of schools should be executed.

When speaking about Curriculum-Based Measurement, Petscer, Cummings, Biancarosa, and Fien (2013) stated that reliability estimates of R-CBM are considered high. For instance, Petscer, et al (2013) declared that "For example, when estimated using three or more passages administered concurrently, alternate form reliability for a single passage is usually estimated at .80 and above, and for the set of passages is approximately .90 and above" (p.72). Therefore, the outcomes of this study are considered reliable since R-CBM is a reliable tool and is used in schools worldwide.

3.8 Ethical Considerations

In this study, I received the IRB approval after a formal consent was sent to the parents and guardians of the participants where they signed and agreed to all the terms of the study, Moreover, the approval of the school's administration was granted too. The word count per minute (wcpm) passages were part of fifth graders curriculum and the teachers were required to score students' Oral Reading Fluency, therefore the parents didn't have any problem regarding the study. Teachers of different sections had the choice to choose any strategy for teaching Oral Reading Fluency, therefore, teaching each section using a different strategy wasn't considered unethical. Moreover, the consent and letter to administration included the following:

- A fair explanation of the purpose of the study ad its significance.

- An offer to answer all inquiries
- The data collected will remain anonymous
- Participants can be withdrawn for inconvenience at any moment

The methodology section has discussed the research method chosen for this study, provided a description of the sampling technique and the sample of the study, explained about the data collection and data analysis, and concluded with the reliability and validity, and the ethical considerations. In the next chapter, the findings of the study are discussed and the outcomes of the two interventions are compared.

Chapter Four

Findings

In this chapter, the results of interventions are displayed in tables and graphs. The first part shows the results of the two groups' pre-intervention and post-intervention scores. The second part shows graphs that illustrate the comparison between pre-intervention and post-intervention scores of the two groups. The third part displays the percentages of the improvement in both groups. The fourth and last part presents the results of the third group, control group, compared to the first two groups.

4.1 Pre-intervention and Post-Intervention Scores

Students of all groups have undergone the CBM test three times at the beginning of the study to create a baseline for each participant. Later, the intervention took place where group 1 (Grade 5 A) were instructed using the Repeated Reading strategy and Group 2 (Grade 5 B) were instructed using the Whole Class Choral Reading; on the other hand, group 3 (Control group) were taught Oral reading fluency traditionally, without a particular strategy where they listened to their teacher's reading and then read in turn. The following tables and graphs show the results of the pre-intervention, baseline, and the post-intervention. In the pre-intervention section, the average of the three scores for each student was calculated and then transformed into percentage. The percentage was calculated by dividing the number of correct words read per minute by the total number of words in the passage. Similarly, the percentage of the post-intervention

scores were calculated using word excel. The names of students are written using the initials of the first name and the family name in the table and later represented as numbers from 1 to 23 in the line graph; however, in the control group, the students are numbered and not named since their names are insignificant to the study.

4.1.1 Grade 5 A Pre-intervention and Post-Intervention Scores

The pre-intervention scores as shown in table 1 range from 55 correct words per minute to 127 correct words per minute or 39.29% and 90.71% respectively. Moreover, the average of percentages was calculated, which is 66. 64%.Basically, Grade 5 A students' oral reading fluency level was considered average since the passing grade in the school for all subjects including ORF is 12/20 or 60%. However, after the intervention of teaching ORF using the RR strategy, the average has become 79.78 which is almost 80%, showing a huge progress and scoring a minimum of 46.43 and a maximum of 100%.

Grade 5 A Scores

Table 2

Grade 5 A Pre-intervention and Post-Intervention Scores

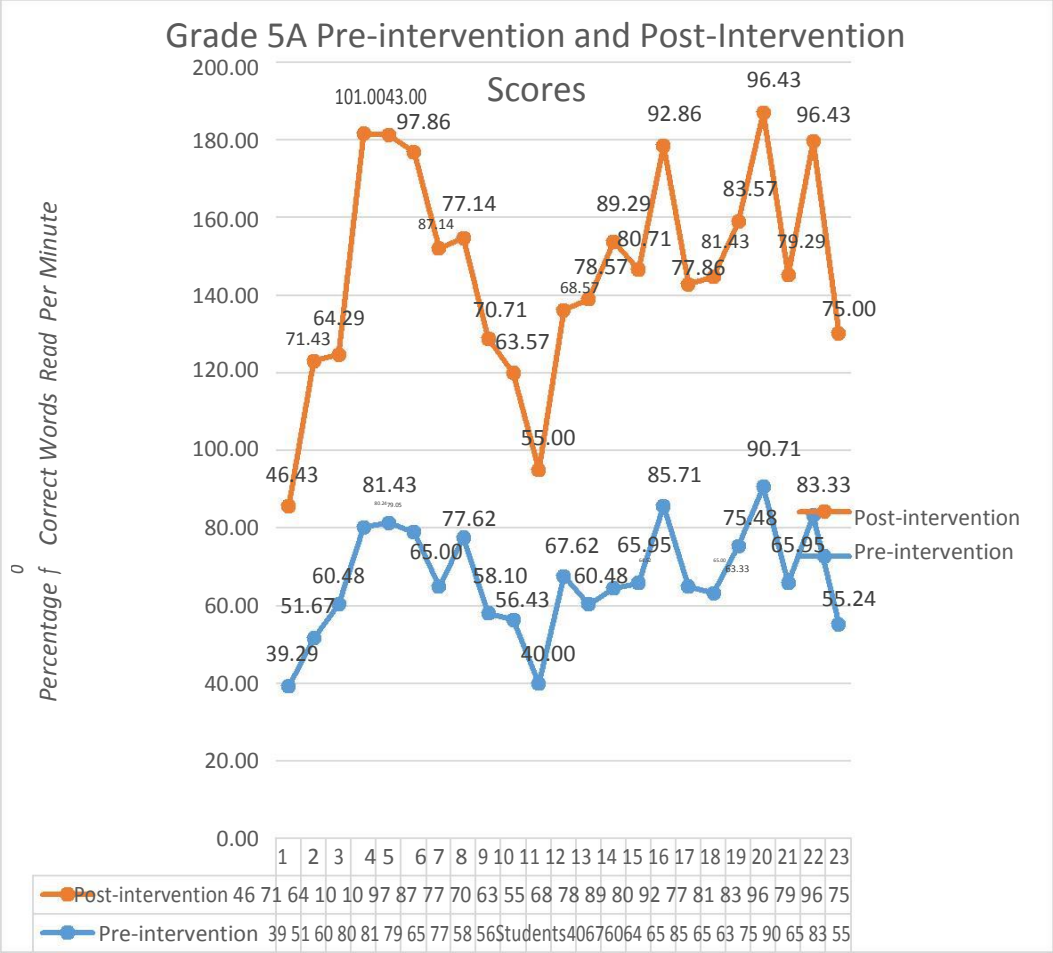
Grade 5 A Scores

Students' Names	Score 1	Score 2	Score 3	Average	Percentage	Post-Intervention	Percentage
A J	67	58	40	55.00	39.29	65	46.43
A A	67	71	79	72.33	51.67	100	71.43
H B	94	87	73	84.67	60.48	90	64.29
D Z	111	123	103	112.33	80.24	142	101.43
R M	122	119	101	114.00	81.43	140	100.00
R M	119	124	89	110.67	79.05	137	97.86
S F	88	103	82	91.00	65.00	122	87.14
S Y	124	114	88	108.67	77.62	108	77.14
S M	91	86	67	81.33	58.10	99	70.71
-A S	80	82	75	79.00	56.43	89	63.57
-A Az	56	62	50	56.00	40.00	77	55.00
-A Sh	87	109	88	94.67	67.62	96	68.57
-A c	89	83	82	84.67	60.48	110	78.57
-O S	98	74	99	90.33	64.52	125	89.29
-L K	105	86	86	92.33	65.95	113	80.71
-M H	117	135	108	120.00	85.71	130	92.86
-M A	100	87	86	91.00	65.00	109	77.86
-M N	99	87	80	88.67	63.33	114	81.43
-N D	103	117	97	105.67	75.48	117	83.57
-N K	138	128	115	127.00	90.71	135	96.43
-N S	82	95	100	92.33	65.95	111	79.29
-Y D	133	114	103	116.67	83.33	135	96.43
-Y M	82	85	65	77.33	55.24	105	75.00
Averages	97.91	96.91	85.04	93.29	66.64	111.69	79.78

number of words: 140

Figure 1

Pre-Intervention and Post-Intervention Percentages of Grade 5A



4.1.2 Grade 5 B Pre-intervention and Post-Intervention Scores

In Grade 5 B, the minimum pre-intervention score was 65 correct words per minute, whereas the maximum score was 126.67 correct words per minutes or 46.43% and 90.48% respectively. The average of the baselines was calculated and scored 63.69% which is also

considered average since the passing grade in the school for all subjects including ORF is 12/20 or 60%. However, after the intervention period and after being exposed to the WCCR strategy, students have shown progress and scored an average of 73.79% of the passage was read correctly. Furthermore, the minimum percentage scored was 52% and the maximum was 99.29%.

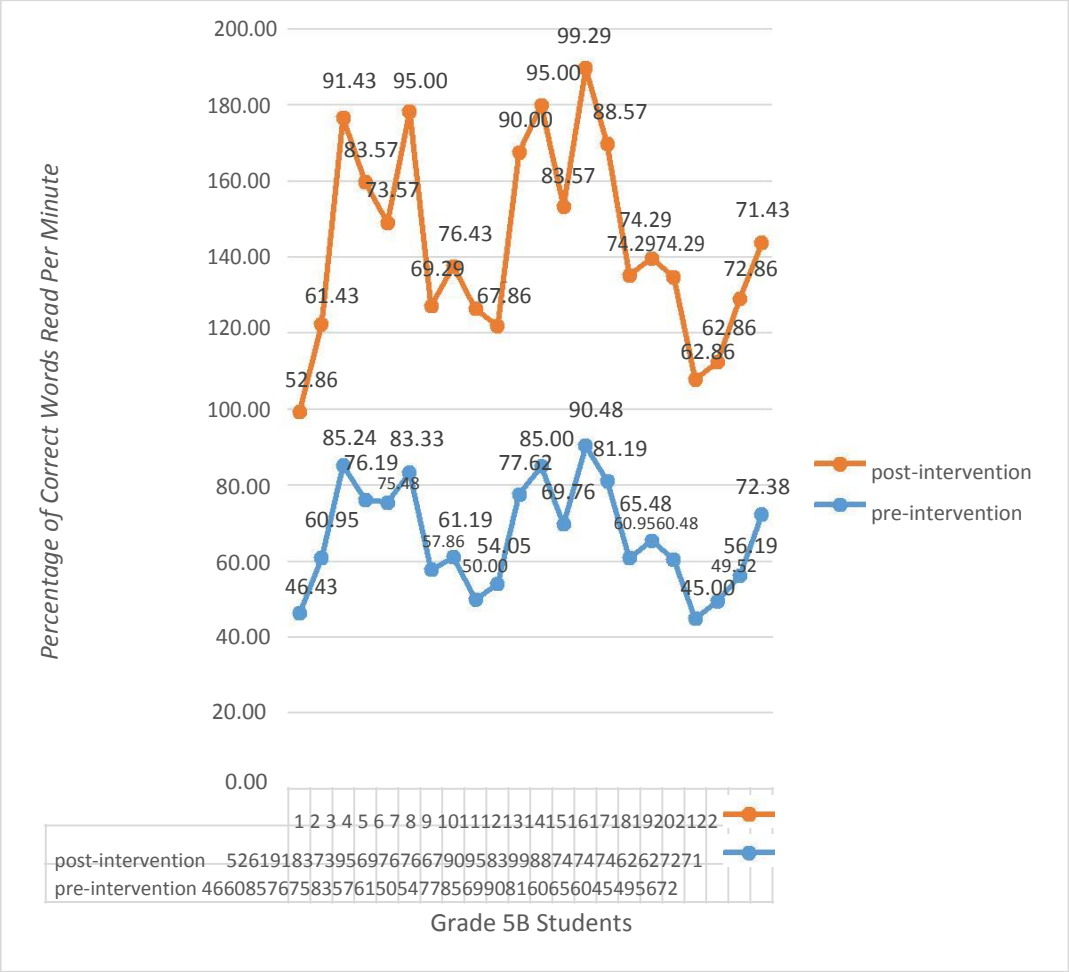
Table 3

Grade 5 B Pre-intervention and Post-Intervention Scores

Grade 5 B Scores							
	Pre-Intervention					**Post-Intervention**	
Students' Names	**Score 1**	**score 2**	**Score 3**	**Average**	**in percentage**		in percentage
A K	59	76	60	65.00	46.43	74	52.86
A M	77	98	81	85.33	60.95	86	61.43
A D	134	119	105	119.33	85.24	128	91.43
I K	108	97	115	106.67	76.19	117	83.57
I J	95	116	106	105.67	75.48	103	73.57
A As	113	118	119	116.67	83.33	133	95.00
As A	93	92	58	81.00	57.86	97	69.29
J T	81	84	92	85.67	61.19	107	76.43
H At	76	79	55	70.00	50.00	107	76.43
H A	77	81	69	75.67	54.05	95	67.86
R K	126	104	96	108.67	77.62	126	90.00
Z F	115	119	123	119.00	85.00	133	95.00
Z N	100	108	85	97.67	69.76	117	83.57
S R	137	125	118	126.67	90.48	139	99.29
O A	124	108	109	113.67	81.19	124	88.57
O H	82	101	73	85.33	60.95	104	74.29
O B	91	97	87	91.67	65.48	104	74.29
L H	81	89	84	84.67	60.48	104	74.29
M S	62	65	62	63.00	45.00	88	62.86
M Y	66	74	68	69.33	49.52	88	62.86
N J	93	79	64	78.67	56.19	102	72.86
W C	113	106	85	101.33	72.38	100	71.43
average	95.59	97.05	87	93.21	66.58	108	77.14

Figure 2

Pre-Intervention and Post-Intervention Percentages of Grade 5B



4.1.3 Grade 5 B Pre-intervention and Post-Intervention Scores

The pre-intervention scores as shown in *table 1* range from an average of 63.67 correct words per minute to 126.67 correct words per minute or 45.48% and 90.48% respectively. Moreover, the average of percentages was calculated, which is 65.61%.

Basically, Grade 5 C students' oral reading fluency level was considered average since the passing grade in the school for all subjects including ORF is 12/20 or 60%. After a period of two months, the students were tested again using CBM ; the average has become 68.38%, showing slow progress and scoring a minimum of 47.86 % and a maximum of 92.86%.

Table 4 *Control Group Pre-intervention and Post-Intervention Scores*

Students' Names	Score 1	score 2	Score 3	Average	in percentage		in percentage
student1	60	75	62	65.67	46.90	67	47.86
student2	73	92	85	83.33	59.52	86	61.43
student3	130	115	120	121.67	86.90	124	88.57
student4	105	100	115	106.67	76.19	110	78.57
student5	100	110	106	105.33	75.24	108	77.14
student6	113	118	119	116.67	83.33	120	85.71
student7	88	90	65	81.00	57.86	85	60.71
student8	92	84	80	85.33	60.95	90	64.29
student9	80	75	55	70.00	50.00	74	52.86
student10	78	80	70	76.00	54.29	80	57.14
student11	122	103	100	108.33	77.38	112	80.00
student12	115	119	123	119.00	85.00	123	87.86
student13	100	108	85	97.67	69.76	100	71.43
student14	135	125	120	126.67	90.48	130	92.86
student15	109	108	120	112.33	80.24	116	82.86
student16	82	90	80	84.00	60.00	90	64.29
student17	87	97	91	91.67	65.48	98	70.00
student18	88	90	78	85.33	60.95	90	64.29
student19	65	64	62	63.67	45.48	72	51.43
student20	68	77	65	70.00	50.00	73	52.14
student21	60	67	88	71.67	51.19	75	53.57
student22	91	79	66	78.67	56.19	83	59.29
average	92.77	93.91	88.86	44 91.85	65.61	95.72	68.38

Figure 3:Pre-Intervention and Post-Intervention Percentages of Control Group

4.2 Comparison of Both Interventions

Students of grades 5 A and B are considered heterogeneous classes since they encompass students of different levels and abilities with the same number of students. However, in Grade 5 B, a student left almost in the middle of the study because she couldn't keep up with the English level of her friends and therefore used to leave only during English sessions to take remedial lessons with a different teacher. This, however, doesn't affect the results of the study. The minimum baseline average in Grade 5 A was 39.29% and that of Grade 5 B was 46.43%. This shows that there is almost a 7% difference in the lowest baseline average. AJ, the student who scored the lowest average not only in Grade 5 A but in the three groups, came from another school and this was his first year in this school. AJ didn't score well in all subject areas and was at the risk of failing this grade level. Moreover, AJ received very little support from his parents at home and did not usually practice . After the intervention, AJ scored 46.43%, showing 7.14% progress but his score remained below average. In his case, more one-to-one intervention and practice should have been implemented. NK, the student with the highest score in Grade 5 A, receives a lot of support at home in all subject areas and comes from a high-socioeconomic background where both her parents speak to her in English and most of her family members are native speakers ,and she visits the United States of America at least once per year. NK was able to score 96.43% by the end of the intervention. On the other hand, MS scored 45% correct words. MS is also a struggling student who moved from another school. She

was a low-achiever and at risk of failing the grade level. MS used to feel anxious during written and oral exams and lacks self-esteem and self-confidence, based on observations. MS was motivated by her increasing CBM scores and made a considerable progress of 17.86%, reaching 62.86% correct words. SR, the student who scored 90.48% correct words is a high-achiever who comes from a high-socioeconomic background and receives a lot of support from her parents.

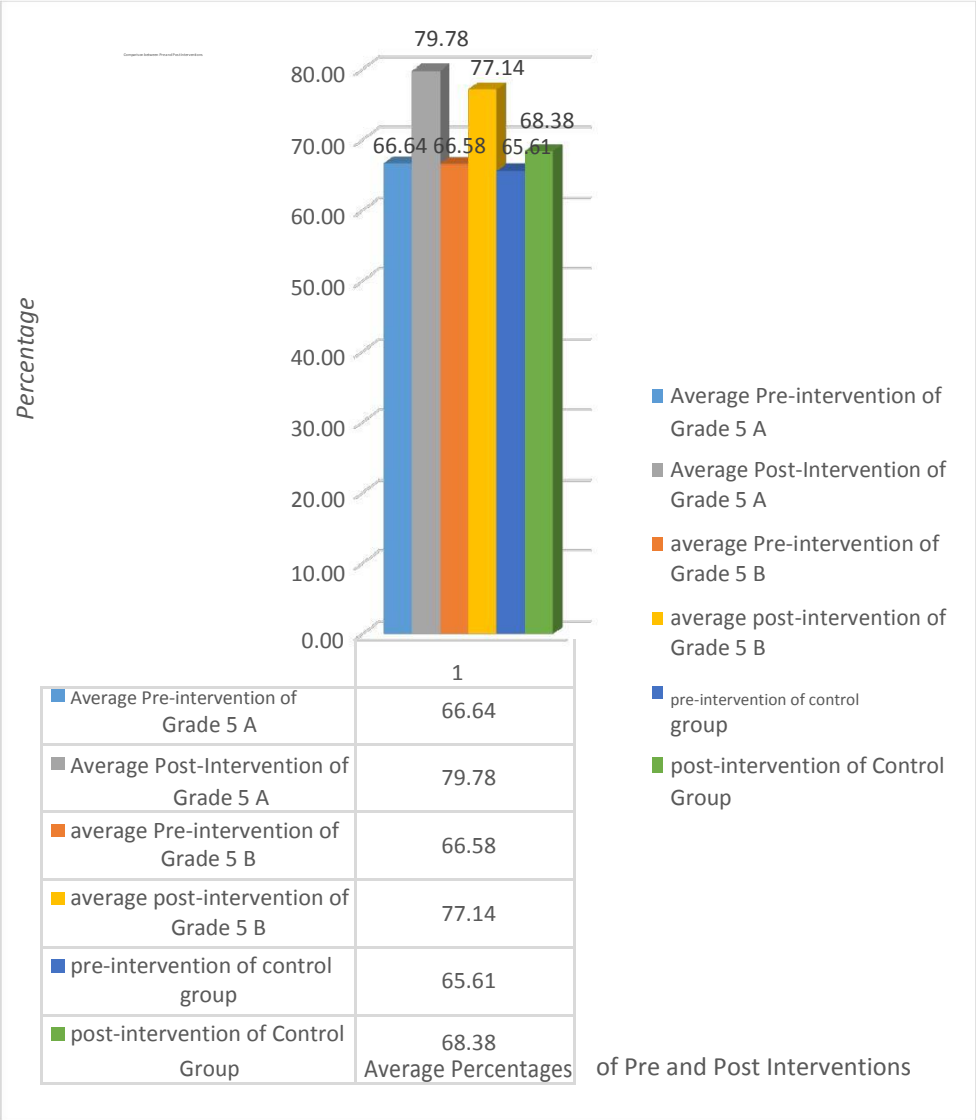
4.3 Comparison between Percentages of Improvement

The average of baselines was calculated in percentage for the purpose of comparing the progress. Grade 5 A students who received the Repeated Reading intervention scored an average of 66.64%, prior to intervention. However, Grade 5 B students who received the Whole-Class Choral Reading intervention, scored an average of 66.58%, prior to intervention. Moreover, Grade 5 C, the control group, that didn't receive intervention, scored an average of 65.61%. The average of baselines is similar with a maximum difference of 1.03%, showing that the three groups have students of different abilities.

After a period of two months where groups 1 and 2 (Grade 5 A and B) received intervention on a regular basis , Grade 5 C students were instructed traditionally. Students were tested again. Grade 5A students scored 79.78% correct words, Grade 5 B scored 77.14% correct words, and Grade 5 C scored 68.38% correct words. These results prove that Grade 5 A students scored the best results proving that the Repeated Reading strategy gives better results in the Oral Reading Fluency (ORF) of students than the Whole-Class Choral Reading strategy (WCCR) in this study.

Figure 4

Comparison between Averages of Percentages



Comparison of the Improvement Percentage

The results in Table 4 and Figure 6 show the progress clearly. Figure 6 was added since Figure 5 can't show the percentage of improvement since the baselines of the groups are different. For this purpose, the pre-intervention scores were subtracted form the post-intervention scores to get the percentage of progress. The results show that Grade 5 A that received the Repeated Reading strategy showed better results than Grade 5 B that received the Whole-Class Choral Reading strategy.

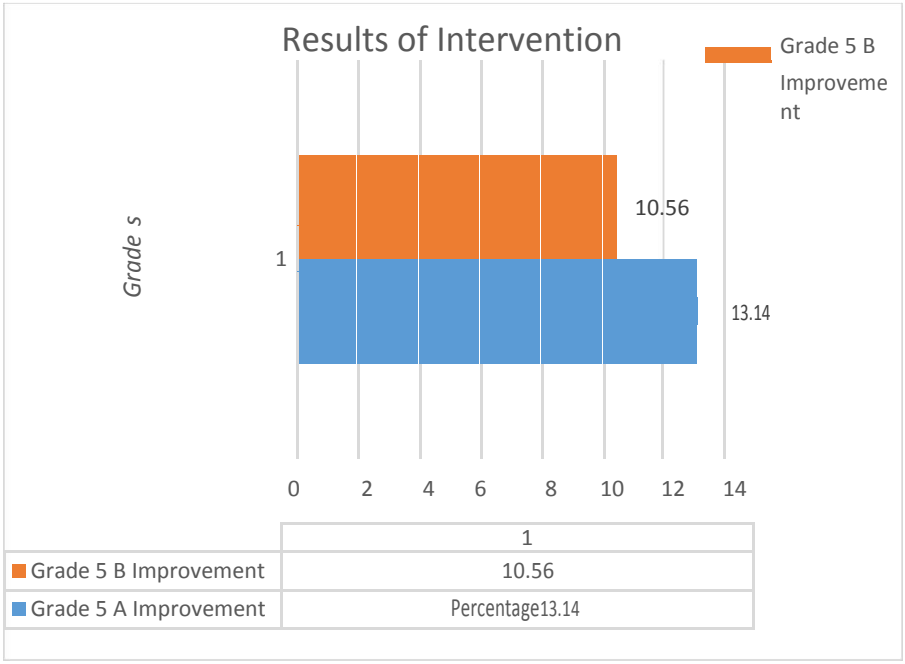
Table 5

Comparison of the Improvement Percentage

Group	Pre-intervention	Post-Intervention	Percentage of Improvement
Grade 5 A	66.64	79.78	13.14
Grade 5 B	66.58	77.14	10.56
Control Group	65.61	68.38	2.77

Figure 5

Comparison of the Improvement Percentage

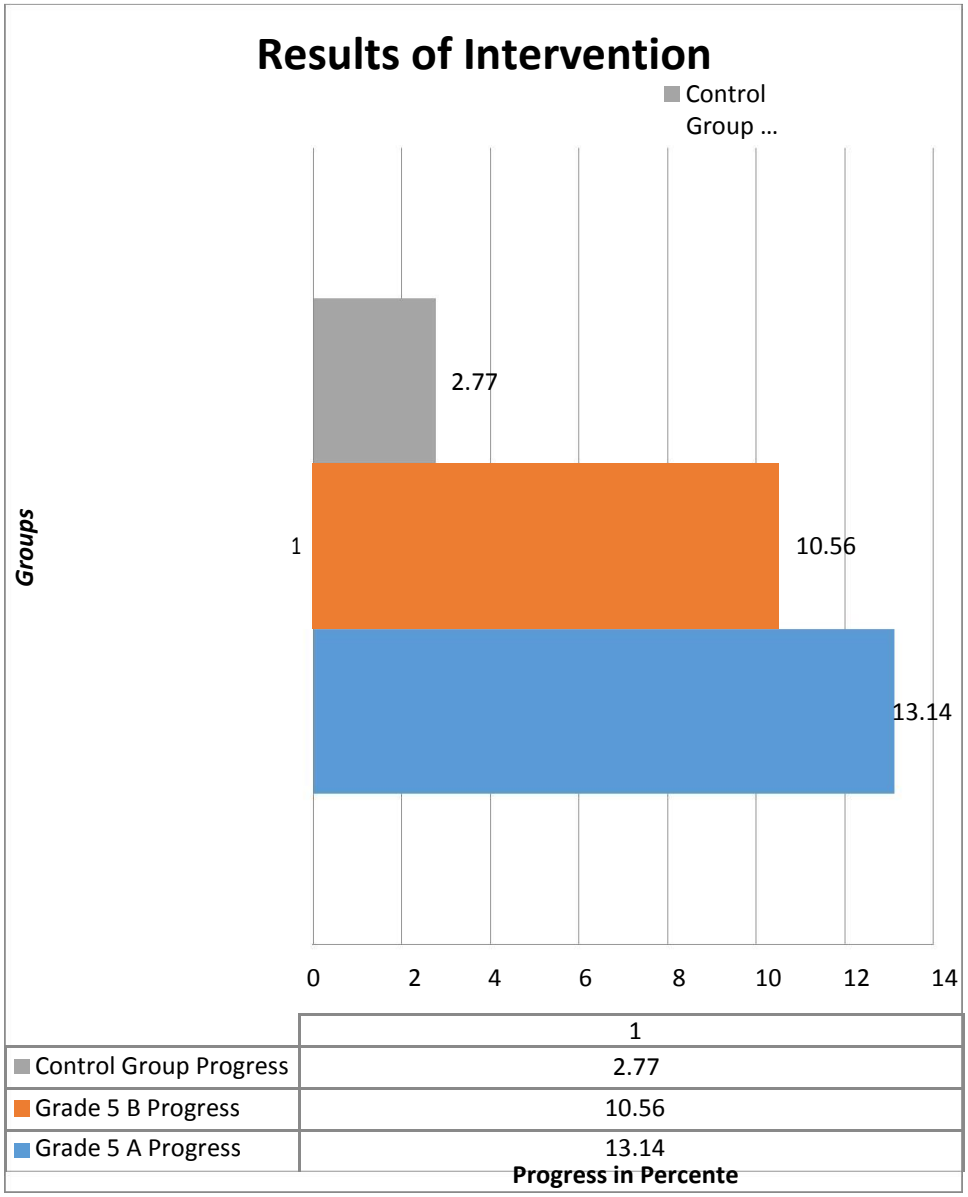


4.4 Intervention vs. No Intervention

Figure 6 below, shows the results of the three groups. Grade 5 A students scored 13.14% better when reading, and Grade 5 B students scored 10.56% better whereas Grade 5 C students scored the lowest, making a progress of 2.77% only. The results here prove that students who aren't taught Oral Reading Fluency (ORF) using a specific strategy will show minimal progress in fluency.

Figure 6

Results of Intervention



In conclusion, the results of the interventions were scrutinized using excel and the Difference in differences technique adopted by the quasi-experimental design was also used. The baselines of the three groups (Grade 5A, Grade5B, and Grade5C) were compared and proved to be similar with a slight difference. Later, the percentages of improvement (after intervention) of each group were studied separately. Then, the improvement percentages of Grade 5 A with the RR intervention and Grade 5B with the WCCR intervention were compared to reveal that Grade 5 A improved more than Grade 5B concluding that the Repeated Reading strategy yield better results in students Oral Reading Fluency than the Whole Class Choral Reading in this study. After that, the improvement percentages of the three groups were compared to show that the control group(Grade 5C) that didn't receive intervention and the teacher was teaching reading without a particular strategy showed the least improvement with a very low percentage of 2.77%.

Chapter Five

Discussion

This chapter comprises a thorough analysis and interpretation of the study results with a thorough discussion of the CBM scores relating them to different factors. Later, a discussion of the progress made by the two strategies is included. Lastly, a discussion of the traditional teaching of Oral Reading Fluency is discussed in highlight of the control group's progress.

The purpose of the study was to address the different factors that affect the oral reading fluency of second language learners, to scrutinize and test two of the most popular oral fluency reading strategies, and to create a new strategy that leads SLL to meet the international level of proficiency in ORF.

Moreover, it was hypothesized that the Whole-Class Choral Reading will lead to better results in students' Oral Reading Fluency (ORF) because of its originality and uniqueness. However, the results proved the opposite, giving the Repeated Reading the privilege of yielding better results in students' oral reading fluency.

In support of the latter analysis, Lyon (1998) stated that children who are at risk for reading failure either live in poverty, have speech disabilities, have limited English proficiency, or their parents have low reading levels.

Therefore, two conclusions can be derived from this observation. First, students should practice speaking and reading their second language more often and that the 8 English sessions per week are not enough. Second, schools should encourage students to practice their Second Language more often and should alter the English curriculum, including

more strategies for enhancing ORF and assessing it professionally. Cartledge (2005) concluded that the curriculum should focus on readiness skills. Moreover, Teale, Paciga, and Hoffman (2007) declared that schools must teach "Foundational skills needed to promote lasting literacy growth" (p. 142) as cited by Keyes et al (2016). Furthermore,

Keyes et al. (2016) believed that "reading failure is associated with poverty and urban learners." The researchers noticed that students who come from low socioeconomic backgrounds scored less on CBM especially when their parents don't speak English and are not educated. The National Assessment of Educational Progress (NCES, 2011) concluded that poor students performed lower than their peers in fourth-grade reading. In addition, Keyes et al., (2016) stated that "instruction in oral reading fluency (ORF) is a vital component of overall reading proficiency" (p. 142).

As mentioned in the second part of my thesis: the literature review, and as cited by Paige (2011) the results of this study suggest that the Repeated Reading gives better results in ORF of students than the Whole-Class Choral Reading and that a combination of two strategies motivates students to improve their ORF.

Moreover, I have mentioned in my literature review that there were many studies conducted using the Repeated Reading strategy and all these have proven the success of this strategy. For instance, Chard,Vaughn, and Tyler discussed the effectiveness of the RR strategy and how it showed success in twenty-four studies. Furthermore, Therrien (2004) also agreed that RR is a very useful strategy in enhancing students' ORF. Also, Hapstak and Tracey(2007) support that conclusion and add that all results of studies conducted using the RR strategy have shown great progress. Therefore, the literature review supports the results. Although, according to the literature review the WCCR

showed significant results when applied on students. However, I haven't found any study that compares these two strategies. Thus, when studied by me, both strategies showed great progress in students' ORF, however, the RR showed better results although students were always more enthusiastic to share in the WCCR according to my observation. Therefore, I suggest combining the two strategies to give better progress in students' ORF levels.

5.2 The Results

The results have shown that the Repeated Reading strategy yielded better results in students' oral reading fluency CBM scores, reaching an average progress of 13.14% after two months of intervention only. The results of this study are similar to the results reached during the 24 studies on Repeated Reading that were scrutinized by Chard, Vaughn, and Tyler (2002) which prove that the Repeated Reading strategy enhances students' Oral Reading Fluency level. The results also confirm with Therrien (2004) who proved the usefulness of the RR strategy in enhancing different types of reading abilities. Therefore, this study suggests that the RR strategy shows better results, in students' ORF levels, than the Whole-Class Choral Reading strategy. One possible reason that explains these results is that during Repeated Reading the teacher makes sure that all students are participating, however the WCCR requires personal effort, consistency, and self-dependence from the students. Simply, the students who aren't serious or have little interest in enhancing their ORF levels can easily mislead their teacher by pretending to read and moving their lips only. Furthermore, low-achievers might find it difficult to keep pace with the other students and might become demotivated

Another important point is that the Repeated Reading strategy is based on reaching a desired goal which is fluency. Namely, the reader should repeat reading the passage until he/she is fluent. In this study, I allowed my students to read (or repeat reading) a maximum of three times to be fair. Similarly, Choral reading was practiced three times (maximum). By specifying the maximum number of trials for the two strategies, it becomes fair to compare the results of the two strategies. It's also worth mentioning that both strategies cater for better fluency, the desired goal. And this is communicated to the participants of the study to increase their motivation.

After I reached the results discussed above, I suggested new strategy that combines the two with a twist. During the new strategy: The Repeated Choral Reading, the teacher pairs-up a high achiever with a low-achiever, or a demotivated student with a motivated student so that they practice well before the whole class reads the passage chorally.

5.3 Traditional way of teaching ORF

At this school and in many schools throughout Lebanon, minimal efforts are made to enhance students' Oral Reading Fluency. As mentioned earlier, many studies have proven that ORF affects students' comprehension and self-confidence. If students can't read well, they'll find difficulty in comprehending the text which will affect their grades and later their self-esteem. Teachers at this school grade students' ORF subjectively, giving a grade out of 20, conditioned that the grade shouldn't exceed 16. Teachers don't have a rubric nor any form of written criteria to grade students' ORF. Moreover, teachers are free to use any or no strategy to teach Oral Reading Fluency. Most of the teachers use the traditional way of

teaching ORF where the teacher reads the passage once and then each student reads out load a few lines in turn, and the teacher scores subjectively. The results have shown that using this traditional ways yields to very slow progress, however using any strategy whether the Repeated Reading or the Whole-Class Choral Reading generates results that are at least 5 times better.

Chapter Six

Conclusion

In conclusion, the outcome of the Repeated Reading strategy intervention yielded better results in enhancing students' Oral Reading Fluency than the Whole-Class Choral Reading strategy. Although it was assumed that the Whole-Class Choral Reading Strategy would give better results since students enjoy it. Therefore, a new oral reading fluency strategy was created: “The Repeated Choral Reading Strategy" which was tested on another set of students and showed significant improvement in students' oral reading fluency. This strategy, a combination of two renowned strategies, elicits students' interests toward reading, creates an appetite for oral reading among students, and motivates the struggling readers to read continuously and with enthusiasm. This section presents the limitations of this action research, further studies, and some recommendations.

6.1 Limitations

One major limitation of the study would be the sample. The sample is only sixty-eight students who belong to the same school. Hence, the results can’t be generalized. However, the results could be used in the same school to decide on one of the strategies to be implemented in all classes. Another limitation could be the convenient sampling; it would have been better if the study was based on a random sampling for the results to be generalized. Some might consider that having a control group might threaten the ethical aspect of the study. I would say that the control group is not receiving a new strategy, intervention, however students are not left without a strategy as they are being

taught using the traditional strategy. Moreover, their results are expected to show improvement, but not as significant as the other groups. Besides, some may think that the Repeated Reading strategy is very similar to the traditional strategy used with the control group. The two strategies are similar because they both rely on reading the passage repeatedly. However, in the Repeated Reading strategy, the teacher should give corrective feedback until the student reaches the fluency level expected. On the other hand, in the traditional strategy, the teacher isn't allowed to stop nor correct the student's mistakes in a direct way.

Moreover, due to time constraints, the **Woodcock-Johnson III Tests of Achievement (WJ III ACH)** was not tested on all students therefore, I had to cancel it from the study.

6.2 Further Studies

The same study can be replicated in different schools in Lebanon. A larger sample could be studied in order to generalize the results to the population of the study. Similar study using CBM but different interventions could be used to improve other English subject areas such as writing, spelling, grammar, or reading comprehension. Furthermore, the same study could be translated and applied on Arabic Oral Reading Fluency of the same students, and it would be interesting to compare the results of the Arabic study to the English study.

Although believed strongly that the originality of the Whole-Class Choral Reading strategy would lead to better results, the scores of the Repeated Reading strategy demonstrated otherwise. Therefore, a combination of both strategies is a possibility. A new research with a new set of students has been tried. A new strategy called The Repeated Choral Reading is

being tested on students using CBM scores. The Repeated Choral Reading strategy is a new technique to enhance students' oral reading fluency where students read the text silently for the first time, the teacher reads it aloud once, and then each two students pair-up. The teacher assigns two to three lines for each pair of students and gives them two minutes to practice their part, repeatedly. During the first read, each pair reads their part together, chorally, and in turn. During the second read, all student read the passage together chorally; however ,they lower their voice when reading the parts of their friends, creating an enchanting musical reading. It's highly believed that this strategy is effective and highly enjoyable for students.

The steps of the Repeated Choral Reading Strategy:

1- The teacher models reading the passage.

2- The students highlight the unfamiliar or difficult words on their copy of the passage.

3- The teacher models reading the unfamiliar words to the students. 4- The whole class reads the unfamiliar words together.

5- The teacher pair-up the students. In case, there's one student left, that student will practice reading with the teacher.

6- The teacher sets a timer of 60 seconds. Students start reading to each other. Students calculate the word count per minute after deducting the number of errors. (CBM scores).

7- The same procedure above with the second student is applied.

8-The students read the passage chorally altogether once or more upon the students' performance.

9- The teacher roams around and makes sure that all students are participating and provides corrective feedback.

10- Each time, the teacher concentrates on an aspect of reading: intonation, speed, prosody, fluency, and pauses.

This strategy was implemented by me on my Fifth graders and showed spectacular results in students' oral reading fluency. The students enjoy the 30 minutes of reading and competing against each other. Reading has become an enjoyable session for them. It's worth mentioning that most of my students have reached a high percentile of the international CBM scores although they aren't native speakers.

It's important to mention that Rasplica and Cummings (2013) reported that the Peer-Assisted learning strategy is very helpful in improving students' ORF ; therefore, I decided to encompass this strategy and combine it with the RR and WCCR.

In conclusion, The Repeated Choral Reading strategy could be used for further studies to show the effectiveness of this strategy on enhancing students' Oral Reading Fluency.

6.3 Recommendations

An integration of technology is recommended to enhance the process and make it more student-oriented. I conducted a similar study on a smaller group, a group of 9 students. However, I integrated the strategies and asked the student to download audacity on their computers at home. Audacity is a software that enables students to self-record their voice. Besides, I created a Wiki page and called it Rapid

Readers where all the students had access to it from home. Students used to practice reading at home and self-record their reading. This option gives them the chance of listening to the recordings and realizing the progress they made. In class, students kept record of the reading passages in

a Rapid Reader portfolio. In conclusion, the integration of technology and the organization of passages with scores in a folder are highly recommended since it motivates the students to keep record of both the hard copy of the scored passages and the soft copy of the recordings to monitor their progress individually or with their parents. Moreover, to make the process of CBM scoring easier, teachers or researchers can subscribe to CBM websites where they calculate score and individualize them easier.

For teachers or researchers that might complain from time constraints or big number of students, two recommendations are suggested. First, grouping students or putting them in centers makes things easier. The students can be divided into four groups where they complete tasks that can be done individually and then the teacher/researcher pulls out one student at a time to read and score. The second way is to split the students into two groups and share the session with another teacher. This way you'll have less students to apply the strategy and score.

Moreover, the researcher/teacher can purchase online programs that will easily calculate the R-CBM scores of students.

Finally, I would also recommend researchers who are willing to replicate this study to have a discussion panel with students after the intervention to ask about their experience and to conduct an interview with the teachers who applied the

strategies to ask them about their experience as Paige (2011) has done during applying the WCCR strategy on sixth graders.

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Appendix A

Name _____

Read the passage. Use the make predictions strategy to check your understanding.

Nancy's First Interview

Nancy poured herself a bowl of cornflakes as her father finished a telephone call. "You're really putting me on the spot," he said to the person at the other end of the line. "I already have a commitment today, Jim." After a few moments, Mr. Jenson sighed and hung up the telephone. Nancy looked up from her breakfast, preparing for bad news.

Her father gave her a sad smile. "I'm really sorry, Nance, but I have to work today. We'll have to reschedule our fishing trip." Mr. Jenson was a reporter for the city newspaper. After the stock market crash of 1929, his newspaper had laid off most of the reporters. Four years later, they still had only a skeleton crew. He was glad to have a job, but he was overworked and underpaid.

Nancy shrugged, trying not to look too upset. She wished she could do something to comfort her dad. The last thing she wanted was to make him feel guilty. "It's okay, Dad," she said, forcing a cheerful smile.

"The worst part is that our photographers are on other assignments," he grumbled, shaking his head. He paused for a moment, lost in thought. "Nancy," he said, "do you remember when I showed you how to use my camera?" She nodded. "Do you think you could help me today? I can't carry all of the equipment by myself, and we'd get to spend some time together."

Nancy jumped up from her chair and ran to her bedroom to change out of her fishing clothes. "Make tracks," her dad called down the hallway. "We're in a hurry!"

Appendix B

Name _____

Read the passage. Use the summarize strategy to help you understand what you read.

The Wonders of Water

Water as a Natural Resource

Water is a natural resource that makes life on Earth possible. People, animals, and plants cannot live without it. Yet, in many places in the world, people are running low on water to meet their needs. More and more people need larger amounts of water for drinking, energy, farming, and industry. These growing needs influence, or affect, the demand for available fresh water. Also, waste from farming, business, and energy can pollute water in rivers, lakes, and the ocean. Such pollution reduces available water supplies even more.

It may seem odd that some people are running low on water because Earth's surface has more water than anything else. Seventy percent of Earth's surface is ocean, and oceans hold about 97 percent of Earth's water. However, ocean water is too salty to be usable. People need fresh water. Fortunately, there is something that turns ocean water into fresh water.

The Water Cycle

Earth's water is always moving and changing in a circular pattern. This repeating system is called the water cycle. The water cycle plays an important role in providing people with fresh water as a natural resource.

The sun provides energy to the water cycle. As the sun heats ocean water, some of the liquid evaporates; that is, it changes into a gas, or vapor. Wind carries the vapor high into the air, where much of it cools and forms clouds.

Appendix C

Name _____

Read the passage. Use the summarize strategy to recognize and remember what you learned.

A Warrior for Women's Rights

In January 1917, a group of women marched silently in front of the White House. Each carried a banner asking for the right to vote. One banner read, "Mr. President, how long must women wait for liberty?" These women, called Silent Sentinels, picketed outside the White House almost every day for eighteen months. Passersby attacked the women and called them names, but the demonstrators continued their silent march.

These women were the first ever to protest in front of the White House. Their leader was a brave young woman named Alice Paul.

Becoming a Suffragette

Alice Paul was born in 1885 in Moorestown, New Jersey. She came from a Quaker family that believed in women's education and women's equality, uncommon beliefs for the time. Her mother worked for women's suffrage and brought young Alice to her suffrage meetings.

Paul graduated high school at the top of her class and went on to college. She earned degrees in biology and sociology before going to England to study social work.

Her stay in England transformed Paul. She met Emmeline and Christabel Pankhurst, leaders of the women's suffrage movement in England. They taught Paul a new way to fight for women's equality.

American suffragists had chosen quieter ways to push for women's rights. They wrote letters, passed around petitions, and held private meetings with political leaders. English suffragists believed in "deeds, not words." They held parades. They formed picket lines. They went on hunger strikes. Alice Paul returned to the United States with a fighting spirit.

Appendix D

Name _____

Read the passage. Use the summarizing strategy to help you understand what you are reading.

The Battle of the Bedroom

My older sister, Marta, glares at me from across the room. Her dark brown eyes blaze with anger; she's ready to burst. I almost say something to set her off, but Dad said if he heard any more noise from our room that we would both be grounded.

Sure, we fight like all sisters do, but the battle lines were redrawn when we moved into our new house a week ago. In our old house, we each had our own bedroom. Now we have to share, and it has led to an all-out war. We still haven't unpacked a thing because we can't agree on how to decorate the room. Right now, we're stuck with cardboard boxes.

Marta wants dark walls, gray curtains, and posters of her favorite bands. I want a mural of ocean creatures against bright blue walls. Our family took a trip to the Gulf of Mexico last year, and I fell in love with the sparkling blue water. I think it would be fun to have a reminder of that. Marta despises my idea, and I sure don't like hers, so now we're stuck in a stalemate.

Dad pops his head into the room. "Lucia, Marta, can we see you in the living room, please?" He and Mom are sitting on the couch. Marta and I sit in chairs across from them.

Dad starts by telling us how disappointed he is, especially about the disrespect we've shown them and each other. I squirm in my seat, embarrassed that we've been acting so childish.

Mom cuts to the chase and says, "It's a mystery to us how two bright and reasonable girls can be so inflexible." She hands us each a spiral notebook and a ballpoint pen. "You both have good ideas. So we're giving you one hour to come up with a plan..." she looks back and forth between us, "for the other person's idea. Lucia, you'll tell us why Marta's idea is the best, and vice versa."

Appendix F

Name _____

Read the passage. Use the summarizing strategy to make sure you understand what you have read.

The Cup that Shines at Night

Ann's eyes fluttered open and she found herself lying in a moonlit grassy field by her friend Mia who was slowly waking up.

"Where are we?" Mia asked groggily. "How did we get here?"

"I don't know," Ann replied. "I wonder how we'll get home."

An odd purple house with a crooked front door stood nearby. Spying a note tacked to the door, Ann got up and pried it loose. It read: "The cup that shines at night will show the way home."

"What in the world is the cup that shines at night?" asked Mia.

"Do you think maybe it's inside this weird-looking house?"

As if the house understood them, the door creaked open. Creeping inside, they saw a table whose surface was covered with all kinds of cups. A tall crystal cup waited to be filled with water. A hefty mug sat next to a delicate china coffee cup, making it appear even more fragile. Towering over the others was a polished silver cup. It looked like the trophy Ann had won in the school science fair.

Puzzled, they went outside and collapsed on the porch. They had seen dozens of cups, but none of them was shining. Mia asked if Ann thought they'd ever get home.

As she considered Mia's question, Ann sighed sadly. She gazed at the moonlit sky, hoping desperately that an answer might suddenly appear above them.

Then she leapt up, gesturing eagerly skyward. "Look, it's the Big Dipper! A dipper is a kind of cup, and that dipper is certainly shining! The Big Dipper is made up of seven stars!"

"How will the Big Dipper help us get home?" demanded Mia.

Ann explained that drawing a line through the two stars at the front of the dipper leads to Polaris, the North Star.

"I'll bet that's what the note means," she exclaimed. "We should let Polaris lead us home."

Appendix G

Name _____

Read the passage. Use the ask and answer questions strategy to help you understand what you read.

Migration

You may know people who have moved from one city to another. When
13 people move, they usually stay in their new place for quite a while. Did
27 you know that there are many animals that move two times a year? This
41 regular movement is called migration.

46 A migration is usually a round trip made between two areas. Most
58 animals that migrate move when the seasons change in spring and fall.
70 They go where there is better weather and more food. Some animals
82 migrate to areas where their young will have a better chance to live.

95 There are different types of migration. Many kinds of birds migrate
106 between north and south. They live in northern areas in the spring and
119 summer. In fall, when the weather turns cold, they fly south. In spring
132 when the weather warms up, they fly north again.

141 Other animals move between a higher place and a lower one when the
154 seasons change. In summer, they make their homes high up on a mountain.
167 When winter comes, they head to warmer areas down the slopes. Birds
179 called mountain quail migrate in this way. These quail are birds that do not
193 normally fly. In the fall, they walk down the mountain and in the spring
207 they walk back up again!

212 Some mammals and tropical birds live in climates that are very wet for
225 at least part of the year. When the dry season comes, these animals move
239 to a place that is wet during this season. When the rainy season returns,
253 they go back home.

257 How do these animals know when to migrate? Scientists who have
268 studied this behavior think that animals know when seasons are about
279 to change. They also seem to know where they are going and how to
293 get there.

Appendix H

Name _____

Read the passage. Use the ask and answer questions strategy to check your understanding of new information or difficult facts.

Building a Green Town

On May 4, 2007, a tornado demolished the town of Greensburg, Kansas. Nearly all the townspeople survived, but 95 percent of the town's buildings were destroyed. With their town gone, the residents of Greensburg might have given up and moved away. Instead, they chose to stay and rebuild.

Within days of the storm, the people of Greensburg chose not only to rebuild their town but to remake it. They resolved to reinvent their town so that it lived up to its name. They would make Greensburg a green town.

What Does It Mean to Be Green?

Being green means being environmentally friendly. A person can be green by recycling or composting. A person can use energy-saving lightbulbs or public transportation. For a town, being green is more complicated. It means using efficient and renewable power sources. It means constructing buildings without harming the environment. It means making sure the buildings use energy efficiently. It means gathering and recycling everything from newspapers to rain water. It means making the town walkable to reduce the use of cars and buses.

Greensburg residents knew what they wanted to do, but they did not know how to do it. So they built a team. They brought in experts to guide and teach them. Together, the residents and the experts set goals for the new Greensburg and made a plan to reach those goals. They found private companies and government agencies to help them pay for the reconstruction. The greening of Greensburg began.

Appendix I

Name _____

Read the two articles. Use the summarizing strategy to help you understand each author's point of view.

WHAT WAS THE PURPOSE OF THE NAZCA LINES?

Ancient Images

The Nazca Lines are related to objects in the sky.

The Nazca Lines are huge drawings found in the desert of southern Peru. The Nazca people and earlier groups made the images 2,000 years ago by removing dark gravel to show the light sand underneath. Some of the drawings are shapes, like long lines or spirals. Other drawings are of animals or plants. The drawings range in size from 150 feet to 950 feet. They are best seen from a high altitude, such as from an airplane flying overhead.

The Answer Is in the Stars

Some people think that the Nazca Lines are related to astronomy. Astronomy is the study of objects in the sky, such as planets or stars. One twentieth-century scientist stated that some of the animal drawings looked like constellations. She thought that the Nazca people drew patterns of stars in the sky.

A Calendar for All Seasons

Another scientist agreed that the lines were related to the stars. He believed the lines were a giant calendar. He noticed that the sun set over one group of lines on the first day of winter each year. Noticing that sunrise and sunset lined up with different lines during the year, he decided that the Nazca used the lines to keep track of the months and seasons. By following the movements of the sun and stars, they knew when to plant and harvest crops.

Research shows that there is a connection between the stars and the Nazca Lines. Some of the Nazca sand patterns look like certain constellations and the lines serve as a calendar when the sun lines up with different drawings during the year. Scientists may not know exactly what the Nazca used these lines for, but some are certain it relates to the stars.

Appendix J

Name _____

Read the passage. Use the visualizing strategy to help you picture what you are reading.

Pecos Bill's Wild Ride

Pecos Bill was a cowboy. Perhaps it would be better to say that Pecos
14 Bill was *the* cowboy. No one threw a rope faster or rode a bronco longer
29 than Bill. He could lasso a steer and have it ready to brand before the lariat
45 was off his saddle horn. Once, he got on a wild horse at dawn and was still
62 riding when the tame beast finally bedded down for the night. Of course,
75 that was a week later. Bill himself would be glad to tell you that he was
91 the original cowboy and that the others were just copies—and he'd be
104 saying it in all modesty!

109 There was one time Pecos Bill got thrown. Of course, no cowhand likes
122 to confess to being tossed off his mount. Still, even Bill would likely admit
136 to this particular tumble. He might even tell the tale with pride.

148 It happened on the day Pecos Bill invented the rodeo. Bill was riding
161 the trail with a group of cowherds. They were telling stories about their
174 wild rides. To Bill, their accounts had the taste of whoppers about them.
187 He wasn't about to accuse anyone of telling lies, though, so he kept this
201 feeling to himself.

204 It was just then that the weather changed. The wind picked up, and the
218 sky took on an unusual shade of yellow. Turning in his saddle, Bill saw a
233 big, black twister bearing down on the herd. He could hear an odd sound
247 like a cross between a freight train and a bear's growl. The noise got
261 louder as the storm approached. "I reckon there's a tornado coming our
273 way," he remarked. "You boys round up the herd. If you all don't mind,
287 I'm going to take a little ride of my own. Don't wait up."

300 With that, Bill headed back down the trail toward the roaring storm.
312 While he rode, he took his lasso off the saddle horn and began spinning it
327 above his head.

Appendix K

Name _____

Read the passage. Use the strategy of visualizing to check your understanding.

A Penny Saved

SETTING: A family living room in the evening. MOM and DAD sit
12 together on a couch while children REX and MANDY sit cross-legged on
24 the floor in front of them. TAD stands facing them with graphs and charts
38 posted on an easel behind him. A bright pink piggy bank sits on a small
53 table in the center of the stage.

60 TAD: You're all probably perplexed as to why I've called this
71 emergency family meeting. It is because of this! [points to the piggy
83 bank] It seems that someone, perhaps one of you, has been raiding our
96 vacation fund!

98 MOM [hiding a smile]: And what evidence, may I ask, has led you to be
113 so suspicious?

115 TAD: Well, we all know that a penny saved is a penny earned, and
129 we've stashed away lots of spare change over the months. We were
141 planning on using that money for our summer adventure. But lately I've
153 observed that our piggy bank has been losing weight.

162 REX: It doesn't look any thinner to me.

170 TAD: Well, if you look at this chart and spreadsheet [turns to point at
184 easel behind him], you'll see a steady decline in the bank's weight over the
198 past weeks.

200 MOM [to DAD]: Did you help him make those on your computer?

212 DAD [to MOM]: He likes numbers and charts as much as I do. The
226 acorn doesn't fall far from the tree.

233 MANDY: So you think that one of us has been stealing money?

245 TAD: That is a precise summary of my investigation.

254 MOM: Well, knowing what a great detective you are, I'm sure you left
267 no stone unturned. What other evidence do you have?

Appendix L

Name _____

Read the passage. As you read, check your understanding by asking yourself what theme or message the author wants to convey.

Grandpa's Shed

My grandpa is a mountain,
    Brooding, looming, tall.
I stand in his shadow, silent as a stone.
Rattling rusty paint cans,
    He gestures toward the shed. I gape.
That shed's a squat gray mushroom,
    Needing more than paint to fix.

The old man's hands are vises,
    Prying open paint cans lightning fast.
Astonished, awed, I gasp aloud,
"Red, yellow, green—and PURPLE!"
My words explode like fireworks.
        Anticipating anger,
            my mouth shuts like a trap.

Grandpa merely dips his brush,
    Paints a horse and hound.
"The horse I harnessed as a boy,
    Dog was mine too."

Impulse strikes—a flash of fire.
        I seize a brush,
    Soon swishing, swirling pictures.
With each stroke, a story,
    My words painting pictures.
We share that shed like one vast canvas,
    His strokes to mine, my words to his.
    We step back, gazing at stories told.

Appendix M

Name _____

Read the passage. Use the make predictions strategy to help you understand what you are reading.

Bringing Home Laddie

"Papa, let's go!" Sofia was dressed and waiting on the shabby wooden porch. Her father couldn't hear her. He was in the neighbor's garden, digging up an ancient tree stump. Sofia shifted her feet and picked at the peeling paint on the railing. The sun hammered down on the porch, so that it was not merely hot, but sweltering. It would serve Papa right if she melted away like the Wicked Witch of the West. Why should Sofia have to wait? Why couldn't their neighbor, Mrs. Stone, wait instead? Then Papa could drive Sofia to the animal shelter now to adopt her new dog.

Sofia peered into the shadows of the house. "Mom," she yelled, "Papa promised we could go early. Do I have to walk?" She could imagine how unhappy she'd look—just another stray dog trudging dejectedly down the road.

Her mother came to the door, a damp dish towel in her hand. "Sofia, come help me." Sofia stayed where she was, as rooted as the neighbor's tree stump. "Standing here won't make your father finish any sooner. If you help me, he'll be here before you know it."

Sofia gave a sigh of profound suffering and followed her mother through the cool house into the spotless, lemony kitchen. She leaned against the counter and dried the dishes her mother handed her—along with a reminder of the promise she'd made to take care of the dog herself. "I know, Mom, I know," Sofia whined. To her surprise, by the time the dishes were dry, Papa was back. The time really had passed quickly, just as Mom had said it would.

When Sofia and her parents arrived at the shelter, an attendant escorted them to the dogs' quarters, a glaring concrete courtyard lined with tiny cages on all four sides. Its smell was revolting—a mixture of mouthwash and Papa's old fishing bucket.

Appendix N

Name _____

Read the passage. Use the ask and answer questions strategy to help you understand what you read.

Of Floods and Fish

The Mississippi River flows more than two thousand miles from
10 Minnesota to the Gulf of Mexico. Every few years, it floods. In April and
24 May, 2011, a combination of melting snow and falling rain along the upper
37 part of the river caused the lower part of the river to overrun its banks.
52 Floods cause widespread destruction. Floodwaters damage and
59 sometimes knock down buildings. They destroy farmland and animal
68 habitats. With nowhere to live, the animals often move into populated
79 areas. What about the fish? Because they live in water, shouldn't a flood
92 be good for them? As it turns out, floods can hurt fish populations just as
107 they harm many animals that live on the land.

116 **The Dead Zone**

119 The Mississippi floodwaters proved most detrimental to the fish and
129 other ocean life in the Gulf of Mexico. The Mississippi River is made
142 of fresh water. The Gulf is made of salt water. The extra river water
156 that flowed into the Gulf endangered the native saltwater fish. More
167 harmful, though, were the pollutants the river water carried with it. As the
180 swollen Mississippi washed over farmland, it picked up the fertilizer and
191 pesticides that farmers had used on the land and crops. These chemicals
203 are poisonous to ocean life. The river then dumped these poisons into
215 the Gulf. The extra river water and the farm runoff created a dead zone
229 along the coast. A dead zone is an area of water that does not have enough
245 oxygen to support life.

Appendix O

Name _____

Read the passage. Use the ask and answer questions strategy to check your understanding as you read.

Is There Life Out There?

"Is there life out there?" is a question scientists who study astrobiology are trying to answer. They look for life in space. In recent years, they have turned their attention to Europa, one of Jupiter's four largest moons.

Europa is a little smaller than Earth's moon and is covered by a sheet of ice. Its surface is too cold and exposed to too much radiation for anything to live there. Scientists want to know what lies beneath the ice, for that is where any life on Europa would most likely be.

The Necessities of Life

For years, scientists believed all life on Earth depended on energy from the sun. During a process called photosynthesis, plants use energy from sunlight to make food and to release oxygen into the atmosphere. Aerobic creatures rely on that oxygen to breathe. In addition to providing the fuel for photosynthesis, sunlight also provides the necessary warmth for life to survive. Scientists believed life could not survive in extreme temperatures.

Scientists also believed that all food chains led back to photosynthesis and the food produced by plants. Recent discoveries, however, have changed the way scientists think about life. They have discovered tube-shaped, worm-like creatures and other animals living around hydrothermal vents on the ocean floor. These newfound creatures do not rely on the sun or plants for food and energy.