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Effects of Extended Explicit Systematic Phonics Instruction
on Adult L2 Reading Fluency

H. Vanessa Ocana

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Arts

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ABSTRACT

Effects of Extended Explicit Systematic Phonics Instruction on Adult L2 Reading Fluency

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Master of Arts

Reading may be viewed as an invisible skill, and some may even consider it a passive skill. However, reading is an active and complex skill. It requires one to use a wide range of skills simultaneously to achieve fluency. Hence, it is crucial to learn and use strategies to master such a complex skill. Today, research states that fluent reading includes using top-down and bottom-up strategies, or an interactive approach, to truly become a fluent reader. In fact, research has shown the effects that all three models have had on students. More specifically, L1 studies have shown positive effects in using phonics instruction (a type of bottom-up model) on students' reading fluency. Although this is true, there has been little research in L2 settings that investigates the effects that phonics instruction has had on L2 learners. It seems that L2 reading curricula focus on teaching top-down strategies in hopes that students implicitly learn bottom-up strategies. In reality, students may need to experience a transitional phase where they explicitly learn phonics and how to decode words in order to become fluent readers. The current study seeks to explore whether implementing extended explicit systematic phonics instruction in an L2 setting facilitates reading fluency.

Thus, the goal of this study was to investigate whether extended explicit systematic phonics instruction would affect L2 students' reading fluency in terms of decoding, reading rate and comprehension. Two groups of students participated in this study; an experimental group who received extended explicit systematic phonics instruction and a control group who did not receive the treatment. Two types of exams were administered. One exam indicated that phonics instruction helped students read words accurately, but the second exam illustrated that phonics instruction did not make a difference in decoding, reading rate and comprehension. These results suggest further exploration on the topic.

Keywords: reading fluency, phonics, decoding, reading rate, comprehension

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CHAPTER ONE

STATEMENT OF PROBLEM

Introduction

For both an English as a second language learner and a native English speaker, learning how to read in English can be a difficult task. Reading is achieved when one masters and orchestrates many reading skills simultaneously. Readers must not only process the words that are in front of them, but the meaning as it relates to the whole of the subject matter. These two sets of skills, bottom-up (or decoding) and top-down (or cognitive) strategies require different techniques to master. Bottom-up strategies refer to strategies that readers use to decode written marks and associate them with sounds, syllables, and words (Birch, 2007). Top-down strategies are the strategies that readers use to generate background knowledge, assumptions, expectations, and questions to confirm these expectations (Aebersold & Field, 1997). Both of these strategies are essential when reading occurs.

Hence, readers develop fundamental skills, such as knowledge of the alphabet, grasping and understanding the writing system, phonemic awareness, and decoding (Stahl, 2004). Readers use bottom-up reading strategies to make meaning of printed words before advancing to the more complicated strategies. Once these skills have been mastered, readers turn their attention from making meaning out of printed words to sentences then to paragraphs and ultimately to discourse. Readers begin to use top-down strategies, which focus on predicting, activating schemata, identifying main ideas, skimming, making inferences, etc. Because reading is so difficult, it is crucial that

readers implement both top-down and bottom-up reading strategies to gain fluency (Birch, 2007).

Reading fluency has been investigated for the last 125 years and there have been great debates as to what types of bottom-up and top-down strategies are more effective (Anderson, 2004). But as researchers continue to investigate, many have come to an agreement about what constitutes reading fluency and the strategies needed to gain reading fluency. Birch (2007) states that by implementing both bottom-up and top-down reading strategies, or an interactive approach, reading becomes effective and helps students master multiple tasks at a time.

Most research has been derived from first language (L1) settings; therefore, second language (L2) researchers have looked to L1 research to understand different models of reading. Researchers in L1 settings have come to the conclusion that systematic phonics instruction is an essential bottom-up strategy to teach beginners how to read (Ehri, 2004). Pikulsi (2006) states that phonics is the knowledge of how graphemes represent phonemes. “Instruction in systematic phonics is thought to be essential for learning to read in English and many other languages” (Ehri, 2004, p. 153). Many L1 schools have implemented a reading curriculum that fosters phonics instruction; and have shown great success (Stahl, 2004).

L1 schools have implemented phonics instruction to help students analyze, manipulate, and decode phonemes into words. By learning phonics, students become phonemically aware and apply decoding rules to essentially read unfamiliar words. Once students learn to decode words, they can turn their attention to other strategies, such as

identifying main ideas, accessing background knowledge, previewing, predicting, making inferences, and so forth.

Although research (Adams, 1990, Ehri, 2004, Fletcher, Shaywitz, Shankweiler, Katz, Liberman, Stuebing, Francis, Fowler, Shaywitz, 1994) has been done in L1 settings and reading fluency has been a topic of great interest, few studies have been performed in second language (L2) settings to indicate whether phonics instruction helps L2 students gain reading fluency (Birch, 2007). Perhaps because of the lack of research on how to teach systematic phonics in a L2, it seems that L2 teachers focus on teaching top-down strategies in hopes that students will eventually learn bottom-up strategies to gain reading fluency (Eskey, 1988). L2 teachers historically have focused attention on top-down reading strategies hoping that students will make educated guesses on decoding words accurately.

Definitions

The researcher will look at fluency in terms of decoding, reading rate and comprehension. Samuels (2006) states that “fluency is the ability to decode and to comprehend the text at the same time” (p. 9). Hence, the researcher will look at decoding as one part of fluency. Rate and comprehension are also aspects of fluency that the researcher will focus on in this research. Anderson (2003) states, “fluency is the ability to read at an appropriate rate with adequate comprehension” (p. 68). Anderson focuses on rate and believes that one cannot read at an appropriate rate without understanding. According to Samuels (2006) and Anderson (2008), fluent reading is when a reader is able to decode, read at an appropriate rate, and comprehend adequately.

For this study, the researcher will measure decoding, reading rate and comprehension the following way:

Decoding: to decode, one breaks down a word into syllables and applies rules to know how to pronounce it.

Reading rate and comprehension: Anderson (2009) proposes that an appropriate silent reading rate for adult second language readers is achieved when reading 200 words per minute with 70% comprehension. Hence, only silent reading rate will be looked at in terms when measuring reading rate. Furthermore, 200 words per minute with 70% comprehension will be the standard, which the researcher will use to assess the effectiveness of phonics instruction in Chapters 3 and 4 of the present study.

Purpose of this Study

In view of the lack of research about the effects of L2 phonics instruction, this study seeks to investigate whether phonics instruction helps L2 students gain reading fluency.

The present study attempts to investigate the gap in the literature by determining whether explicit instruction on bottom-up strategies enhances reading fluency in an L2 setting. Specifically, the study attempts to answer the following questions:

1. To what extent does extended explicit systematic phonics instruction affect lower-level adult L2 students' reading fluency, in terms of decoding?
2. To what extent does extended explicit systematic phonics instruction affect lower-level adult L2 students' reading fluency, in terms of reading rate and comprehension?

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

Historical advancements in understanding fluency has left a considerable amount of evidence for the benefits of employing phonics in the classroom. This section will discuss these, establish the definition of fluency, and explore the interactive model further. L1 phonics instruction, both the approaches and affects will be reviewed. Finally the lack of L2 instruction in phonics will be processed and the implications analyzed.

History

Research in L1 reading has been a battle between the whole-word approach (top-down), which is the notion that readers should focus on meaning and strategy use, and phonics instruction (bottom-up), which focuses on the “knowledge of how graphemes, printed letters, or letter combinations typically represent phonemes, the sounds of the language in words” (Pikulsi, 2006, p. 22). The whole-word approach became influential in the 1930s and 1940s. Teachers favored it over phonics drills at a time that focused on meaning rather than individual units (Hempenstall, 1997).

Phonics was introduced in the 1950s when views quickly changed as Flesch (1955) published *Why Johnny can't read and what you can do about it*. Flesch claimed that using the phonics approach was superior to using the word method and that researchers were ignoring results that showed this. This book left parents startled and the pendulum swung in favor of phonics instruction in L1 reading programs for about twenty years.

In the late 1970s, researchers began to look into a “psycholinguistic model of reading,” led by Goodman (1967, 1985). This view emphasized the importance of top-down strategies, which consist of finding the main idea, making inferences, activating prior knowledge, predicting, scanning, skimming, and so forth. Goodman argued that reading is a selective process in which fluent readers select sections of a text, make predictions, sample different parts of the text, and then confirm or dismiss their predictions. Smith (1982) concurred with this view and added that readers contributed more to the text than the actual words written in the text.

However in 1994, reading scores in California plummeted in the National Assessment of Educational Progress Reading Assessment, which resulted in parents demanding legislation to include explicit systematic phonics instruction in schools. Parents succeeded and teaching systematic phonics instruction became part of the curriculum in California and Alabama (Guzzetti, Young, Gitsavage, Fyfe, & Hardenbrook, 2002). Many other parents and advocates of systematic phonics instruction invoked research on reading fluency and found that phonological and phonemic awareness plays a crucial role in learning to read. Thus, teaching phonics became the main method of teaching reading nation wide (Guzzetti et al, 2002).

Adams (1990) stated that while children indeed need to learn phonics, they should also learn purpose and meaning. As a result of this study, educators now teach reading with an interactive approach, which uses both bottom-up and top-down strategies.

Although extensive research has been done in L1 settings to investigate all three models, bottom-up, top-down, and the interactive model, research in phonics instruction in L2 settings is scarce (Birch, 2007). Hence, in order to understand the effects that

phonics has on L1 students and what it can have on L2 students, a reasonable starting point is to define reading and discuss the reading process.

The Reading Process

In order to discuss the significance of fluency in terms of decoding, reading rate, and comprehension both in L1 and L2 settings, we must first understand the theory behind it. There are many key elements that comprise reading fluency. Birch's (2007) hypothetical model illustrates the complexity of reading.

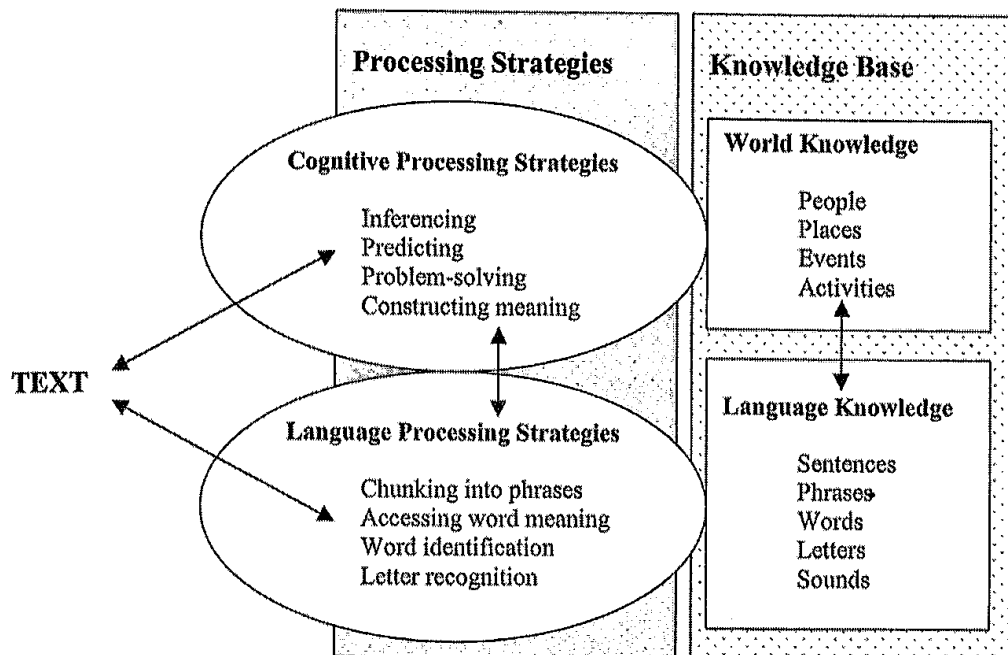


Figure 2.1 Birch's hypothetical model of the reading processor.

In this model, she distinguishes two parts of what she calls the “reading processor.” One part of the processor is called the knowledge base, where readers store world and language knowledge. The other part is called the processing strategies area where readers use cognitive processing strategies (top-down strategies) and language processing strategies (bottom-up strategies) to understand text.

In the knowledge base, knowledge is -organized into memory frames like images, networks, diagrams, and structures (Birch, 2007). This area includes both general and specific knowledge. General knowledge includes people, places, events, and activities whereas specific knowledge includes sentences, phrases, words, letters, and sounds.

Furthermore, the processing strategies area is divided into two sections: the cognitive processing strategies section and the language processing strategies section. The cognitive section is where readers are making inferences, predicting, problem solving and constructing meaning. The language section is where readers are chunking words into phrases, accessing word meaning, identifying words, and recognizing letters (Birch, 2007). The strategies area illustrates that readers need to use specific strategies to attach meaning to words.

Essentially, Birch's model demonstrates that reading requires a wide range of skills to be able to read well. If readers are unable to master a skill, such as recognize words in a text, they often have problems with higher-level comprehension skills as well (Grabe, 2009). Hence, it is vital for readers to orchestrate many skills and apply strategies to master the process of reading.

Automaticity Theory

Because reading is an active process and one needs to focus on multiple things at the same time, it is critical to become skilled at each task of the reading process. Automaticity theory, introduced by LaBerge and Samuels (1974), explains how becoming skilled at each task of the reading process can be possible. It states that reading (or any skill) takes place in phases before one can become fluent (or skilled). During the first phase, readers must master one task first. A reader focuses and puts effort into this

one task because beginning readers only have the capacity to perform one difficult task at a time. Once readers have mastered the first task, they progress to the next phase, which is performing a new task in addition to the mastered task. At this phase, readers are performing two tasks simultaneously but giving more attention to the new task. Once the new task has been mastered, both tasks are performed automatically without effort. This process continues, until students master all the tasks needed to make the target skill become automatic.

Samuels (2006) explains, “the reading process requires that two tasks get done” (p. 9). First, readers must be able to recognize letters and identify them into words. In other words, they decode words. Secondly, readers construct meaning from the decoded words. Essentially, depending on the level, a reader focuses on different things at a time. Coady (1979) states that novice readers focus on process strategies, or bottom-up strategies, such as word identification. More fluent readers shift their attention to top-down strategies, or what he refers to as background knowledge and conceptual abilities. Even though “the process is initially slow, effortful, and hard on the memory,” with practice the reader becomes fluent (Samuels, 2006, p. 9).

Reading Fluency

Samuels (2006) states, “reading fluency is the ability to decode and to comprehend the text at the same time” (p. 9). Decoding is one key element in reading fluency. A reader must be able to connect sounds from printed symbols and then attach meaning to the words. Hence, a reader must use bottom-up strategies, such as decoding, to gain fluency. Anderson (2003) states that reading fluency is the “ability to read at an appropriate rate with adequate comprehension” (p. 3). He further states that reading

involves not only the text, but the reader's background knowledge, strategies, and fluency itself. Essentially, the reader's background knowledge and the text create meaning and the reader is able to gain full comprehension (Anderson, 2008). Hence, a reader must also use top-down strategies, such as activating background knowledge to comprehend. According to Samuels (2006) and Anderson (2008), fluent reading is when a reader is able to decode, comprehend adequately, and read at an appropriate rate.

Teaching Phonics in L1 Settings

According to researchers (Anderson, 2003; Samuels, 2006), fluency consists of decoding, reading rate and comprehension. Furthermore, according to Birch's (2007) reading processor and the automaticity theory, readers use many strategies simultaneously to be able to read successfully. Hence, it seems that explicit instructions on learning how to use bottom-up and top-down strategies may help readers gain fluency. This has been proven in the L1 settings. More specifically, researchers state that phonics instruction helps readers gain fluency. In fact, extensive progress in phonics instruction has been made since it was first introduced in L1 reading instruction (Morrow & Tracey, 1997). The following sections will be a discussion of the effects that phonics has had in L1 settings and the effects it has had on fluency.

Approaches to Teaching Phonics

There are several different methods that have been used to teach phonics. First, it is important to note two main approaches: systematic and unsystematic (Ehri, 2004). Systematic phonics instruction refers to teaching beginners letter-sound correspondences in a clear, defined sequence to help in decoding and spelling. Unsystematic phonics instruction refers to teaching phonics occasionally when the opportunity presents itself

(Stahl, Duffy-Hester, & Stahl, 1998). According to many studies, systematic phonics instruction is the most effective approach to teaching phonics (Ehri, 2004). Ehri, using meta-analysis, reviewed findings from 38 studies to assess whether systematic phonics, unsystematic phonics, or no phonics is the most effective. Her subjects' grade levels ranged from kindergarten to sixth grade. She analyzed results on six outcomes: decoding regularly spelled real words, comprehending text, reading connected text orally, and spelling words correctly or according to developmental criteria. Findings indicated that the groups receiving phonics instruction read better than the control group in most studies. Conclusively, these studies indicate that systematic phonics instruction helps students read more fluently than do programs with little or no phonics instruction. Due to these findings, only systematic phonics approaches will be reviewed. Two main approaches of systematic phonics instruction will be discussed: analytic and synthetic.

An Analytic Approach to Systematic Phonics

In the analytic approach to phonics, consonants are taught in a context of a whole word instead of in isolation (Gunning, 2008). By using this approach, sounds are not taught explicitly; instead students learn words first and are then asked to analyze sounds in the words learned. Students learn sounds implicitly by noticing onsets and/or rimes. Onsets refer to the initial part of a word, the consonant that precedes the vowel (Gunning, 2008). Rimes refer to the part of the words that rhyme, such as –ight in light, sight, and bright or –at in cat, hat, and sat.

Teachers may introduce onsets and rimes when implementing the analytic approach, but they introduce these implicitly, allowing students to analyze and deduce similar sounding onsets and rimes. Students may learn a few words, and once they do,

they become acquainted with similar sounding words by having the instructor teach them to notice the target sounds. For example, the onset /k/ would be taught by reading the words car, can, and cat. In this manner, students make generalizations about the sound /k/ and will be able to identify that same sound when they read other words that start with the sound /k/. The same approach is used when teaching rimes. For example, the rime – ight may be taught by introducing words such as, light, fight, and tight. This method helps students analyze the sounds they read and eventually students analyze words into their pronounceable units (Bear, 1964). Hence, teachers teach sounds of letters by always referring to whole words instead of breaking words apart and teaching each individual phonetic sound. Using the analytic approach has been popular for most of the twentieth century due to the fact that sounds are not taught in isolation but are referred to as whole words and used in context. Also, selections of sounds are chosen by topic and literary quality.

A Synthetic Approach to Systematic Phonics

In the synthetic approach to teaching phonics, sounds from words are decoded individually and pronounced in isolation (Gunning, 2008). The National Reading Panel (National Institute of Child Health and Human Development, 2000) explains synthetic phonics as teaching students to convert letters into sounds and then transforming them into words. Students carefully sound out each letter and blend them together to decode a word. For example, the word bat would be pronounced, “buh-ah-tuh.” Students are taught the sounds of each vowel, consonant, blend, digraph, diphthong, etc. in order to be able to decode words. Because there may be many rules to remember, synthetic phonics programs usually teach words in a more systematic and sequential way to help students

apply graphemes and phonemes to decode unfamiliar words (Ehri, Nunes, & Willows, 2001). Some synthetic phonics programs use a variety of activities as well as decoding rules to help students convert letters into sounds. Such activities consist of auditory, visual, and kinesthetic modalities (Foorman, Francis, Fletcher, Mehta, Schatschneider, 1998). These activities reinforce rules and help students apply their knowledge. By using this approach, readers can decode words carefully by sounding out each letter. It is a very direct method of learning phonics, but it can distort sounds of consonants. Therefore, it is wise to teach readers consonant sounds along with vowel sounds, such as the word bat. And even though sounding out each sound may seem artificial and unnatural, Ehri (1991) assures that pronouncing each sound is necessary for novice readers to decode words.

Today, most of the basal readers and L1 literacy programs use the synthetic approach. Teachers teach students to pronounce each sound of a word and blend them together. Gunning (2008) reaffirms that novice readers need “to have the target sound highlighted by hearing it in isolation” (p. 161). Hence, many literacy programs have adopted this method to teaching phonics.

A Balanced Approach to Phonics Instruction

Although many professionals prefer one specific method of teaching phonics, it is recommended that readers learn phonics in a balanced manner. Gunning (2008) suggests that readers learn phonics in an analytic and synthetic approach. Ehri (2004) also recommends that readers learn it in a systematic way and practice it in an embedded approach (Ehri, 2004). Teaching phonics in a balanced-approach, students will be able to

fully learn and decode words in a text. Essentially, readers will be on their way to becoming automatic decoders, which will assist them in becoming fluent readers.

The Effects of Phonics in L1 Settings

Studies have shown that L1 students benefit if they are given systematic decoding instruction. By using a systematic approach to decode words, students become phonemically aware of sounds instead of just learning the alphabet. Once students learn the sounds of words, they are able to blend sounds together to accurately pronounce a word. And once they are able to accurately pronounce a word they can connect the word to meaning and then comprehend the text and focus on top-down strategies to read fluently. One particular study illustrates that systematic decoding instruction truly benefits young readers to accurately decode words.

Foorman, Francis, Fletcher, Mehta, Schatschneider (1998) examined L1 students' reading performance when teaching phonics. Specifically, they investigated the degree of explicitness when teaching phonics and the effects of phonological processing in word reading in children at risk for reading failure. Foorman and her colleagues assessed the reading progress of 285 students in first and second grades in several Title 1 schools (federally funded) in Texas across 66 classrooms. The main purpose of this study was to seek to understand how the type of letter-sound instruction in early reading programs correlates with under-achieving children's phonological awareness skills.

There were three types of experimental classroom programs used for this study, which were then compared with the standard curriculum in the district. One program provided direct instruction (direct code [DC]) in letter-sound and practice using decodable text. The second provided less direct instruction with systematic spelling

patterns embedded in authentic connected text (embedded code [EC]). The third program provided students with implicit instruction of the alphabet, embedded in authentic text (implicit code [IC]). Subjects were instructed with one type of phonics instruction during a 90-minute daily language arts class for a period of one year. Each type of class instruction was directed by graduate students, who were professionally developed, trained and not authors of this study. Subjects were assessed four times during the year which consisted of standardized reading (decoding and comprehension) and spelling tests.

Results indicated that subjects who received the direct instruction (DC) in letter-sound correspondence in word-reading skill read at a faster rate than subjects who received the other two types of instruction. Also, students in the DC group who had low initial phonological processing skills showed more growth in word-reading skills than children with low phonological processing scores in the other two groups. Furthermore, results on the end-of-year intellectual or achievement test indicated that the DC group was in the 43rd and 45th percentile of the national average on decoding and passage comprehension, whereas the IC group approached the 29th percentile and 35th percentile respectively; the EC group's means were 27th percentile and 33rd percentile, respectively. Clearly, direct instruction on phonics increases students' ability to decode and comprehend better.

Another study illustrates that decoding strategies helps students become better readers. Maureen Lovett and her associates (Lovett, Barron, Benson, 2003) looked at a group of 166 struggling readers who were between the ages of seven and thirteen. These students were so far behind their classmates that they had been referred to what is called the Hospital of Sick Children in Canada, which is where Lovett and her associates began

their study. The purpose of this study was two fold. First, Lovell and her colleagues implemented two phonics programs, which helped students learn reliable decoding and word identification and to determine which program was a better remedial approach. Second, Lovell and her colleagues were interested in comparing the two phonics programs to the standard non-phonics reading program to determine which one exhibited better reading progress in struggling readers.

The first program implemented, Phonological Analysis and Blending/Direct Instruction (PHAB/DI), focused on phonological analysis, blending sounds, and letter-sound association skills when teaching systematic decoding rules. The other program, Word Identification Strategy Training (WIST) focused on teaching phonics in a four metacognitive decoding approach. The main differences between the two programs was that the PHAB/DI emphasized letter-to-sound approach, or the synthetic approach of phonics and the WIST took the analytic approach by recognizing larger sub-syllabic units, particularly the rime of words. Results indicated that both programs, the PHAB/DI and the WIST were far more effective than the standard program to help struggling students in word reading. Although both programs illustrated positive effects, students who were assigned to the WIST program showed a broader-based generalization for English words, or were able to decode unknown words better than students assigned to the PHAB/DI program.

This study (Lovett et al., 2003), as well as other studies (Foorman et al., 1998), indicates that explicit instruction of teaching bottom-up strategies improves reading fluency. Lovett et al's study especially illustrates that struggling readers fall behind because they do not know how to decode words. They cannot keep up with the other

students because they have not received explicit instruction on how to decode, which slows them down. “There is substantial evidence that many children who fall behind in beginning reading are not qualitatively different from other readers, but rather require intense systematic decoding instruction in order to learn to read (Pressley, 2006, p. 161).

By learning phonics, students will be able to move from a pre-alphabetic stage to an early stage of reading. In other words, students are on their way to becoming fluent readers once they learn phonics. In fact, Adam’s (1990) study strongly suggests that learning phonics helps L1 students read better. She tested her hypothesis in a kindergarten class and first grade class. In her study, she concluded that both phonics instruction and decoding instruction help students become fluent readers. She also concluded that both kindergarten and first graders must be explicitly taught the alphabet and what sound each letter represents. By teaching these phonetic sounds in connection to top-down strategies, she found that her students were able to decode words from texts as well as understand what they were reading. In short, her study indicates that phonetic awareness aids students to decode words written in texts.

Phonics Instruction and Practice

The previous examples have illustrated that novice L1 readers benefit from systematic phonics instruction. Although this type of instruction is crucial for readers, it is also essential for teachers to practice in the classroom with students. It is not sufficient to teach rules in the classroom and expect students to produce. While teaching students explicit phonics principles, it is necessary to include practice time in the classroom to help students not only to comprehend the rules, but use them when they read. Practice in the classroom not only helps students use the speech production processing mechanism,

but it also enhances automaticity. When students spend time practicing a rule, the rule will eventually become second nature to them.

Lack of Phonics Instruction in L2 Settings

Although learning phonics is a pre-requisite to becoming a fluent reader, L2 teachers typically do not teach students phonics. This has been a consistent problem for many years (Eskey, 1988). Instead, teachers focus on teaching top-down strategies. Stanovich (2000) states that perhaps a reason educators do not focus on teaching explicit phonics instruction is because they think relying on other knowledge can compensate for the deficit. A reader with poor word recognition skills may rely more on contextual clues to compensate for the bottom-up deficiencies (Stanovich, 2000). This theory may very likely be a cause for why many L2 reading teachers do not explicitly teach bottom-up strategies.

The negligence of teaching bottom-up strategies has been a concern for quite some time now. Eskey (1988) expressed his concern over 20 years ago when he stated that regardless of the emergence of the balance approach, there is still a lack of teaching bottom up strategies in L2 settings. Even after researchers and professionals in the field have implemented phonics instruction in L1 settings and seen positive results, L2 teachers are focused on teaching primarily top-down strategies. Indeed, these findings are alarming. It seems that teaching bottom-up strategies or decoding strategies would be as beneficial, if not more beneficial, to second language learners. They are in fact learning a different language, which means they learn new rules of pronunciation. Eskey (1988) says it best:

Research has resulted in many useful insights, but the lack of attention to decoding problems has, I think, produced a somewhat distorted picture of the true range of problems second language readers face. In practical terms, my concern is thus to keep the language in the teaching of second language reading. That may not sound very controversial, but I think that in promoting higher-level strategies—like predicting from context or the use of schemata and other kinds of background knowledge—some researchers have been sending a message to teachers that the teaching of reading to second language readers is mostly just a matter of providing them with the right background knowledge in decoding those texts. Though that is certainly important, it is also, I think, potentially misleading as a total approach... We must not, I believe, lose sight of the fact that language is a major problem in second language reading, and that even educated guessing at meaning is not a substitute for accurate decoding. (p. 97)

Eskey (1999) has identified the problem. Teachers are replacing the strategy to decode words because they are focused on teaching top-down strategies. Furthermore, he states that research has given teachers the impression that teaching top-down strategies is sufficient when teaching reading. Although teaching top-down strategies is in fact useful and even crucial, it should not take the place of teaching decoding strategies. Knowing how to decode words is one of the first skills students need to learn. It is definitely a skill that one must know and become automatic in before learning how to generate background knowledge or even make predictions. How can learners generate background knowledge and make predictions if they don't know how to decode words? "Thus, decoding is the critical foundation on which all other reading skills are laid"

(Archer, Gleason, Vachon, 2003, p. 89). If readers do not learn to decode words, research indicates that comprehension cannot be attained (Archer, Gleason, Vachon, 2003). Second language teachers must teach decoding strategies to students, which will assist them to then utilize top-down strategies. “There cannot be one without the other if good reading is to occur” (Pressley, 2006, p. 60). Implementing an interactive approach essentially results in reading fluency and comprehension. Hence, L2 teachers must teach reading by an interactive approach, which signifies a focus on teaching bottom-up strategies. After all, L1 research has shown positive results by teaching and emphasizing bottom-up strategies.

Implications

If research indicates that students benefit from learning bottom-up strategies in their native language, it is obvious that we must teach L2 learners these bottom-up strategies when reading English. Moreover, there has been extensive research done in teaching bottom-up strategies in L1 settings, but very little done in L2 settings. This research intends to address this gap. This implies that L2 teachers are not explicitly teaching bottom-up strategies in reading classes. “The introduction of top-down processing has had such a profound impact on second language reading that there has been a tendency to view the introduction of a strong top-down processing perspective as a *substitute* for the bottom-up, decoding view of reading, rather than its complement” (Carrell, 1993, pp. 3-4).

Furthermore, these studies as well as many others indicate that teachers must be strategic in teaching reading. Whether it be in L1 or L2 settings, teachers must teach students strategies to read. Teachers in L2 settings especially must be strategic. If L1

teachers are strategic in teaching reading and are successful, then what more evidence do we need to be strategic in teaching reading in L2 settings, especially teaching bottom-up strategies. If L1 students need strategic instructions, L2 students need it even more! “It is important not only to teach the L2, but also to support students in being strategic in their learning and use of the L2, since students’ use of strategies has been proven to enhance outcomes” (Cohen, 2007, p. 3). L2 students can become fluent readers when explicitly taught both bottom-up and top-down strategies, which essentially supplies them with a variety of strategies.

Research Questions

The purpose of this study is to investigate whether implementing phonics instruction affects L2 students’ reading fluency in a positive way. This study examines the following research questions:

1. To what extent does extended explicit systematic phonics instruction affect lower level adult L2 students’ fluency, in terms of decoding?
2. To what extent does extended explicit systematic phonics instruction affect lower level adult L2 students’ fluency, in terms of reading rate and comprehension?

CHAPTER THREE

RESEARCH DESIGN

Introduction

The purpose of this study is to investigate the effects of extended explicit systematic phonics instruction on L2 reading fluency. As research has stated (Birch, 2007; Ehri, 2004; Eskey, 1988; Nunes, 1999), teaching students bottom-up strategies enhances reading fluency. Although this is true, Eskey (1988) explains that L2 teachers do not focus on teaching bottom-up strategies reading strategies. Eskey's statement was made over 28 years ago, but there is no evidence that programs and materials have made changes. Instead, they focus primarily on teaching top-down strategies, such as finding the main idea, making inferences, skimming, scanning, etc., hoping that students will implicitly learn bottom-up strategies alone. Hence, in this study, extended explicit systematic phonics instruction was implemented in an intensive English program, which aimed to help L2 students with three main areas: phonemic awareness, encoding rules, and decoding rules. This study will determine to what extent extended explicit systematic phonics instruction affects lower level adult L2 students' fluency in terms of a) decoding and b) reading rate and comprehension.

This chapter will describe the research design in detail. First, an explanation of the purpose of the study is provided, followed by a description of the subjects, an overview of the study, including the instruments used, and a procedural overview of the study.

Purpose of Study & Reading Curriculum

This study was conducted at the English Language Center (ELC), an intensive

English program, at Brigham Young University (BYU), located in Provo, Utah. At the time of this research, the ELC had five proficiency levels: level 1 (high-beginning), level 2 (low-intermediate), level 3 (intermediate), level 4 (high intermediate), and level 5 (low-advanced). According to results of the placement exams, which measure the proficiency levels of five skill areas combined (reading, writing, listening, speaking, and grammar), students are placed into an appropriate level to match their proficiency level. Each skill area has its respective objectives and curriculum. Due to the nature and purpose of this study, only the reading curriculum will be discussed.

The ELC's reading curriculum is two fold. It focuses on intensive and extensive reading instruction. Students spend 50% of their classroom time learning intensive reading skills and the other 50% on extensive reading skills. Each area has different objectives. Intensive reading skills include skimming, scanning, previewing, schema activation, predicting, inferring, finding the main idea, and finding details. Extensive reading skills, on the other hand, include a focus on rendering students with the opportunity to read massive amounts of narrative and expository texts according to their proficiency level with the goal of practicing reading skills, and enhancing fluency, automaticity, and confidence in reading (ELC handbook). Although the reading curriculum is divided into two sections, both focus on enhancing and promoting vocabulary acquisition and reading rate. While the ELC's reading curriculum was designed to provide students with intensive and extensive reading experiences, it neglects the explicit instruction of bottom-up strategies such as phonics, encoding, and decoding rules. By implementing these bottom-up strategies, the reading curriculum would result in having students learn both bottom-up and top-down reading strategies.

Design Overview

The current study lasted for two semesters (Fall 2008 & Winter 2009) at the ELC, providing the students with an opportunity to learn and apply the phonics encoding and decoding rules over a 28-week period. This decision was made in part as a result of a pilot study conducted at the ELC (Summer 2008), which indicated that one semester (14 weeks) did not provide sufficient time for students to learn and apply phonics and decoding rules to reading words accurately. Hence, *extended* explicit systematic phonics instruction was implemented with two low-intermediate ESL classes (level 2) and it extended with the same students as they advanced to the intermediate level (level 3). Due to having low number of students test into the low-intermediate class, it was determined that all these students (both classes, n=34, but due to attrition only 15 stayed in the study) be part of the experimental group, having no control group. Starting the second semester though, new students (n=11) tested into the intermediate level (level 3), which allowed these learners to serve as control group.

Because the experimental group received phonics instructions for two semesters and the control group was assigned to this study for only the second semester, two types of measurements were used in this study, instrument battery #1 and instrument battery #2. Instrument battery #1 was designed for only the experimental group. This test battery was designed to determine whether phonics instruction helped L2 students read words accurately within a two-semester period. Hence, the experimental group took a pretest the first week of the first semester, posttest 1 the last week of the first semester and posttest 2 at the end of the second semester.

Instrument battery #2 was the second set of measurements, which consisted of two pretests and two posttests. Both the control and experimental groups took the two pretests and two posttests to compare improvement between the control and experimental groups (See Table 3.1)

Table 3.1

Design of Study

	Experimental Group			Control Group	
	Semester 1	Semester 2		Semester 1	Semester 2
Assessments	Instrument Battery # 1	Instrument Battery # 1	Instrument Battery # 2	No Control Group	Instrument Battery # 2
Type of Test	Reading Horizons	Reading Horizons	Pretests/ Posttests		Pretests/ Posttests
Research Questions	1	1	1 & 2		1 & 2

For the instrument battery #1 tests, the dependent variable was the treatment (phonics instruction) and the independent variable was the scores on the three tests. For instrument battery #2, the dependent variable was the score difference ($X_2 - X_1$) between the pre and posttests (i.e., the reading fluency gains measure by reading words accurately and reading rate). The independent variable was the treatment: explicit systematic phonics instruction for the experimental group and no treatment for the control group.

Subjects

A total of 26 subjects participated in the complete study. Thirty-four students participated in the experimental group during the first semester. Due to attrition, 15 of these students remained in the experimental group the second semester. Eighteen

students participated in the control group during the second semester, but due to attrition, only eleven were able to participate until the end of the semester. It is important to note that on the second semester of the study, new students were matriculated into the experimental group due to administrative decisions. Although these new students were not part of the study, it was advised that new students be enrolled in these classes for motivational purposes. These students learned explicit phonics instructions and took the tests the experimental students took, but their scores were not considered.

Both the experimental and control groups had students whose first languages were Spanish, Korean, Portuguese, and Chinese. The experimental group had one student whose native language was Japanese and the control group had one student whose native language was Thai. Students' age from the first semester ranged from 21-41; whereas, students' age from the second semester ranged from 19-40 (see Table 3.2).

Table 3.2

Summary of Subjects in Study

Semester	Group	Number	Average Age	Age Range
1 st & 2 nd Semester	Experimental	15	28	21-41
2 nd Semester only	Control	11	24	19-40
Total students= 26				

Instructors

The experimental classes (there were two classes) were assigned to the same instructor to teach their reading classes to avoid an extraneous variable. The control group had a different instructor. In addition to the primary instructor in the experimental classes, whom we will call Instructor A, a phonics instructor was assigned to teach the

experimental group both semesters once a week to review phonics rules. A different instructor, Instructor B, was assigned to review the phonics rules. Instructor B's duties were to introduce students to phonics, register students to the RH program, assign homework from the RH program, and review the completed homework assignments once a week. It is important to note that Instructor B did not teach or introduce the lessons, instead, she reviewed the lessons and had students practice decoding words, read passages, and listen to pronunciation. Students learned the rules by doing the homework assignments on the computer. Treatments in semester were designed to serve different purposes. In the first semester, Instructor B only focused on students reviewing the rules and practicing decoding isolated words. In the second semester, Instructor B helped students implement the rules in reading long passages instead of reading isolated words. Hence, Instructor B tried to give ample experiences to the students to practice reading passages with many decodable words during the second semester.

Treatment

The treatment instrument used to teach phonics was the computer program called Reading Horizons (RH), whose audience is intended for fourth graders to adults, Native/non Native English speakers, ESL & EFL learners, and those literate/non literate in their first language. RH consists of 30 lessons and 4 tests.

and Practice (MDP), in which students read passages, listen and practice pronunciation, practice decoding words, and learn new vocabulary words.

Table 3.3

Summary of Reading Horizon's Lessons

Lessons	Objectives
1	Introductory lesson: <ul style="list-style-type: none"> • Step by step instructions of using the computer and the Reading Horizon's program. • Explains purpose and goals of the program.
2	<ul style="list-style-type: none"> • Defines consonants and vowels. • Explains the name, sound and formation of the consonants b, f, d, and g and the vowel a. • Explains combining the learned consonants with the vowel a. • Explains marking consonant and vowel combinations.
3	<ul style="list-style-type: none"> • Explains parts of a word: the beginning sound, the vowel and the ending sound. • Explains how to mark a vowel. • Introduces of Most Common Words.
4	<ul style="list-style-type: none"> • Explains the name, sound, and formation of the consonants h, j, l, and m and the vowel e. • Provides exercises combining the consonants with the vowel e. • Helps students read three-letter words using the vowels e and a. • Introduces new Most Common Words.
5	<ul style="list-style-type: none"> • Explains the name, sound, and formation of the consonants n, p, r, and s and the vowel o. • Helps students combine all twelve learned consonants with the vowel o. • Helps students read, mark, and type three-letter words using the vowels a, e, and o. • Introduces new Most Common Words.
6	<ul style="list-style-type: none"> • Explains the name, sound, and formation of the consonants t, v, w, x, and y and the vowel u. • Explains the special /ks/ sound of the letter x. • Helps students combine all the previously learned consonants with the vowel u. • Introduces new Most Common Words.
7	<ul style="list-style-type: none"> • Explains the name, sound, and formation of the consonants q, z, c, k, and the vowel i. • Helps students use all the vowels in words. • Introduces new Most Common Words.
8	<ul style="list-style-type: none"> • Reviews the names, sounds and formations of all the consonants and vowels. • Reviews Most Common Words.

9	<ul style="list-style-type: none"> • Reviews the three parts of a word. • Reviews marking and reading vowels, words, consonants. • Reviews Most Common Words
10	<ul style="list-style-type: none"> • Introduces the spelling rules of the consonants c and k. • Introduces new Most Common Words
11	<ul style="list-style-type: none"> • Defines blends. • Introduces the six l-blends: bl, cl, fl, gl, pl, and sl. • Helps students read words using the l-blends. • Spelling rules of words that end in the consonants s, f, z, or l. • Explains pronunciation rule of the vowel a when preceding a double l. • Introduces new Most Common Words.
12	<ul style="list-style-type: none"> • Introduces the seven r-blends. • Helps students read words using the r-blends. • Introduces plural endings –s and -es
13	<ul style="list-style-type: none"> • Introduces the eight two-letter s-blends and the five three-letter s-blends. • Helps students read words with s-blends. • Introduces new Most Common Words.
14	<ul style="list-style-type: none"> • Introduces the term “short,” “long,” and schwa vowels. • Explains how to mark a short, long, and schwa vowels. • Provides exercises to mark and listen to long, short, and schwa vowel sounds. • Introduces new and reviews old Most Common Words.
15	<ul style="list-style-type: none"> • Introduces Phonetic Skill #1 & 2 (decoding rule). • Explains marking and reading words using Phonetic Skill #1 & 2. • Provides exercises to practice new skill • Introduces new Most Common Words.
16	<ul style="list-style-type: none"> • Introduces Phonetic Skill #3 & 4. • Explains marking and reading words using Phonetic Skill # 3 & 4. • Introduces new Most Common Words.
17	<ul style="list-style-type: none"> • Defines Phonetic Skill #5. • Explains marking and reading words using Phonetic Skill #5 • Reviews all five Phonetic Skills. • Introduces new Most Common Words.
18	<ul style="list-style-type: none"> • Explains pronunciation rules for the consonants c and g. • Introduces new Most Common Words.
19	<ul style="list-style-type: none"> • Explains rules for adding the endings –ing, -er, -ed, and -est. • Introduces new Most Common Words.
20	<ul style="list-style-type: none"> • Explains the pronunciation rules of the letter y. • Explains and defines declarative, interrogative, and exclamatory sentences and their punctuation. • Introduces and explains direct and indirect quotations and their punctuation.
21	<ul style="list-style-type: none"> • Defines syllables. • Introduces Decoding Skill #1. • Introduces new Most Common Words.

22	<ul style="list-style-type: none"> • Introduces Decoding Skill # 2 and the pronunciation of –le endings. • Introduces new Most Common Words.
23	<ul style="list-style-type: none"> • Defines and explains murmur diphthongs • Explains how w affects words, especially murmur diphthongs.
24	<ul style="list-style-type: none"> • Defines digraphs. • Explains rules for adding the ending –es of words ending in ch, sh, ss, zz, and x.
25	<ul style="list-style-type: none"> • Introduces five more digraphs.
26	<ul style="list-style-type: none"> • Introduces pronunciation rules for special vowels.
27	<ul style="list-style-type: none"> • Explains pronunciation rules for the endings –tion, -sion, and –ous. • Introduces new rules for the combinations: ce, ci, ge, & gi.
28	<ul style="list-style-type: none"> • Explains spelling rules of words that end in the sound /kuh/: c, ck, k, or ke. • Explains pronunciation rules of words with double consonants, & double c’s. • Introduces exceptions to the two decoding skills.
29	<ul style="list-style-type: none"> • Explains rules of using articles, apostrophe’s using contractions.
30	<ul style="list-style-type: none"> • Defines and explains pronunciation of adjacent vowels and the combination gh.

Instruments of Measurement

There were two types of tests conducted for this experiment, instrument battery #1 and instrument battery #2. Instrument battery #1 answered only the first research question, to what extent does extended explicit systematic phonics instruction affect lower level L2 students’ reading fluency, in terms of decoding. This test was created by the RH company, which was part of the RH program. This test was taken by only the experimental group both semesters. The same test was used as a pretest, posttest 1 and posttest 2. Students took the pretest at the beginning of semester 1, posttest 1 at the end of semester 1 and posttest 2 at the end of semester 2.

Instrument battery #2 answered both research questions, to what extent does extended explicit systematic phonics instruction affect lower level adult L2 students’ reading fluency, in terms of decoding and reading rate and comprehension. It was taken

by both the experimental and control groups the second semester. Instrument battery #2 consisted of two pre/posttest created by the researcher. Both the control and experimental groups took the two pretests at the beginning of the semester 2 and the two posttests at the end of semester 2. The pretests and posttests were different, but had the same format.

Procedures

Instrument battery #1. This test was computer administered and created by Reading Horizons. There were three sections in this test. Each section consisted of students reading one word at a time as it appeared on the computer screen. The first section measured students' word recognition accuracy by reading decodable words, the second section measured the recognition of the most common words, and the third section measured the recognition of phonemes by using nonsense words.

Three teachers were assigned to proctor and rate this test. The teachers sat next to the student on the computer and pushed Y on the keyboard if the student read the word correctly and N on the keyboard if students read the word incorrectly. Students took all the tests (pretest, posttests 1, & posttests 2) after class. They took the pretests the second week of the first semester; posttest 1 the last week of the first semester; and posttest 2 the last week of the second semester. The results of the repeated measures test were recorded on the Reading Horizon's program. A percentage was given and saved. It is important to note that the raters had a training session before rating. They were given guidelines of correct pronunciation and practiced to establish inter-rater reliability.

There are two reasons why only the experimental group took this test. First, there was no control group the first semester due to a low number of students who tested into

the low-intermediate level (level 2). And second, the researcher wanted to determine whether there would be any improvement in word recognition accuracy in a two-semester period.

Instrument battery #2. To compare gains between the experimental and control groups, a second test battery was created to measure whether extended explicit phonics instruction helped improve L2 students' fluency in terms of a) decoding b) and reading rate and comprehension. This test battery was taken by both the experimental and control groups during the second semester.

A total of four pre/posttests were created to measure both questions. Both the experimental and control group took four tests during the second semester. Each pre/posttest measured distinct items. The purpose of the first set of pre/posttests was to measure reading rate and comprehension and the other set was designed to measure decoding. Each pre/posttest was identical in format, except for one characteristic. The pre/posttests that measured word recognition accuracy required students to read a passage out loud, whereas the reading rate test required students to read a passage silently.

All pre/posttests were computer administered and each had three sections. Each test had to be created in the following manner. The first sections had students silently read five vocabulary words, which were target decodable words and words that were taken from a narrative passage which students would be reading. These target words were less frequent words either taken directly from the narrative passage or substituted with a more complex, phonetically-transparent synonym. These synonyms were chosen from either Paul Nation's 10,000 less frequent or higher list, or a thesaurus (Nation, 1993). Words taken from the thesaurus were tested to be less frequent words by using

Paul Nation's vocabulary profiler, which highlighted less common words. Under each word, students were asked to choose the correct definition. An option stating that students did not know the definition of the words was provided to students. The purpose of this section was to determine whether students already knew the target decodable words or not.

Immediately after the vocabulary section, a narrative story appeared on the screen. The genre of these passages was narrative fiction. The purpose for this decision was to control for topic schemata of students. If students were familiar with topics or stories, they may have already known decodable words and one cannot totally measure whether explicit phonics instruction was the tool that students used to adequately read words quickly, and accurately. Each passage was different in length: the silent pretest contained 299 words; the speaking pretest contained 266 words; the silent posttest contained 341 words; the speaking posttest 346 words. Students read the passage out loud or silently (depending on which test). Students were timed while reading the story. The test that was read aloud measured whether students were decoding the target decodable words; whereas, the tests which were read silently measured reading rate. The researcher only measured reading rate in terms of reading silently. After reading the text, the time was recorded and students continued to the third section of the test.

In the last section, students answered five comprehension questions about the text (two main idea, two detail, and one inference question). Each passage only contained five comprehension questions because the passages were relatively short in length. This section measured whether students understood the passage adequately. This section was included to determine whether students read the passage at an adequate rate with

appropriate comprehension. Reading fluency is not merely measuring speed, but also comprehension. As stated in Chapter 2, Anderson (2009) proposes that an appropriate rate for adult ESL learners is achieved when reading 200 words per minute with 70% comprehension. Therefore, it was important to know whether students understood at least 70% of the story at the recorded reading rate.

The proficiency levels of the passages were carefully chosen. All passages were chosen from reading websites and rated by a readability website. Level 3 pretest passages were rated to be a high Level 2. These passages were chosen to be high Level 2 for the purpose of having students comprehend the passages at their appropriate level at the beginning of instruction at level 3. The passages were compared against other high level 2 and low level 3 passages from the reading 2 and 3 classes at the ELC to match reading difficulty.

Students took the pre-tests the second week of school of semester 2. Students took the silent pre-tests and oral pre-tests two days apart from each other. Post- tests were administered the second to last week of school. Again, the post-tests were taken two days apart from each other.

The pretest/posttest results were entered on an Excel spreadsheet. The answers to the vocabulary and reading comprehension sections were transferred to the spreadsheets and the correct answers were given a value of one (1) and the incorrect answers were given a value of zero (0). The reading-out loud sections were evaluated by two raters. This section was rated against a rubric, which was created by the researcher. The researcher created a table listing every phonetic rule for each of the five phonetically-transparent words. The rater listened to all of the speaking passages and gave a value of

an X to all the syllables the subjects pronounced correctly and a value of a zero (0) to all of the syllables the subjects did not pronounce correctly. A second rater rated twelve percent of the items. Table 3.4 shows an example of a phonetically transparent word on the rubric.

Table 3.4

Items from Speaking Pretest & Posttest

Sound	Pretest Word		Posttest Word	
/kwu/ Sound	/Qu/est		/Qu/ell	
Short /e/	Qu/e/st		Qu/e/ll	
Blends:				
/st/ /bl/	Que/st/	No /bl/ blend	/St/ifle	/Bl/eachr
Long /e/	R/e/frain		C/e/de	
Adjacent vowel rule:				
Long /e/ Long /a/	C/e/ase	No long /a/	Bl/e/acher	Refr/a/in
Short vowel sound:				
/i/ /a/	R/i/pple	No short /a/	Pansoph/i/st	P/a/nsophist
LE rule	Rip/ple/		Sti/fle/	
/s/ sound for consonant c	/C/ease & De/c/ipher		/C/ede	
Silent /e/	Ceas/e/		Ced/e/	
Long vowel	Dec/i/pher		Pans/o/phist	
Digraphs				
/ph/ /ch/	Deci/ph/er	No /ch/ digraph	Panso/ph/ist	Blea/ch/er
Murmur diphthong /er/	Deciph/er/		Bleach/er/	

The results for reading rate were saved on the computers when students took the test. The times were transferred to an excel spreadsheet and total times were calculated and save on the spreadsheets.

Qualitative Data: Survey

In addition to the quantitative data gathered, the researcher also designed two surveys to gather qualitative data. The purpose of the survey was to determine whether

students perceived phonics instructions to be effective. The researcher had the experimental group take one survey at the end of the first semester and another survey after students completed the second semester. Because students were asked to take the survey after the study was finished, only five surveys were returned.

Survey 1:

-
1. Did phonics instruction (Reading Horizons) help you?

 2. If so, how did it help you

 3. What are some suggestions to improve the phonics instruction (Reading Horizons)?

Survey 2:

-
1. What is your name?

 2. What is your native language?

 3. What is your age?

 4. How many years did you study English before beginning at the ELC?

 5. Did phonics instruction (Reading Horizons) help you read better?

 6. Please explain your answer to question #5 above.

 7. How well do you think you learned the rules of phonics (rules in Reading Horizons)?
 - a. Not at all
 - b. A little
 - c. Fairly well
 - d. Very well

 8. What could have helped you learn the rules of phonics (rules in Reading Horizons) better?

 9. Do you think phonics instruction (Reading Horizons) helped you read faster?

10. Do you think phonics instruction (Reading Horizons) helped you read words accurately (pronounce words better)?

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The purpose of this study was to investigate whether extended explicit systematic phonics instruction makes a difference in lower level adult L2 students' ability to decode words accurately and help improve their reading rate and comprehension. The results and discussions are guided by the following research questions:

1. To what extent does explicit systematic phonics instruction affect lower level adult L2 students' fluency, in terms of decoding?
2. To what extent does explicit systematic phonics instruction affect lower level adult L2 students' fluency, in terms of reading rate and comprehension?

In brief review, this study used two assessments, Instrument Battery #1 and Instrument Battery #2, to gather data to respond to the above research questions. Instrument Battery #1 was used to answer only the first research question and was taken by only the experimental group. There are two reasons why only the experimental group took this test. First, there was no control group the first semester due to a small number of students who tested into the low-intermediate level and second, the researcher wanted to determine whether there would be improvement in decoding in a 28-week (two-semester) period. Instrument battery #2 was used to answer both research questions. It was used the second semester by both the control and experimental groups (See Table 4.1).

Table 4.1

Design of Study

	Experimental Group			Control Group	
	Semester 1	Semester 2		Semester 1	Semester 2
Assessments	Instrument Battery # 1	Instrument Battery # 1	Instrument Battery # 2		Instrument Battery # 2
Research Questions	1	1	1 & 2		1 & 2

Results of Question 1

Question 1: To what extent does explicit systematic phonics instruction affect lower level adult L2 student's fluency in terms of decoding?

The first research question was posed to determine whether explicit systematic phonics instruction helps students decode words accurately. Students took two different types of exams to answer this question. Students took Instrument Battery #1 tests, which was the Reading Horizons (RH) test. The experimental group took a pretest at the beginning of the first semester, posttest 1 at the end of the first semester and posttest 2 at the end of the second semester (see Table 4.1). Two scores were looked at and considered for this test. The researcher considered the cumulative score, which measure word recognition accuracy by reading decodable words, most common words, and nonsense words; and the third section's score, which measured the ability of decoding phonemes by reading nonsense words.

Second, students took Instrument Battery #2 exams, which consisted of an oral reading of a passage. Both the control and experimental groups took this exam the second semester of the study. Students took a pretest at the very beginning of the

semester and a posttest at the end of the semester. The researcher only considered five target words for each of the pretest and the posttest. These words were listened to and rated by two raters.

Instrument Battery #1

The Reading Horizon's test: The cumulative score. The cumulative score measured how students performed on the test as a whole; it was a good indicator of students' improvement of all three sections of the test. A Hierarchical linear model test was run to consider the cumulative scores. The results of the cumulative scores will be reported below.

As Figure 4.1 illustrates, each test shows a 1.4 average gain, which means students improved as a whole. Furthermore, according to the results, students showed a statistically significant gain between the pretest and posttest 1 and the pretest and posttest 2. Conclusively, explicit systematic phonics instruction helps students decode words accurately and there is a significant improvement in decoding within the first semester.

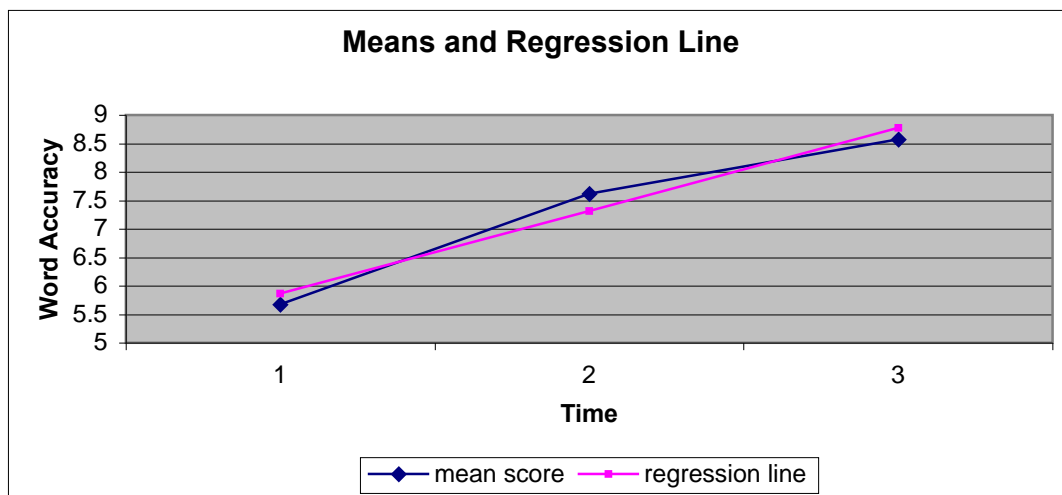


Figure 4.1 Slope of word accuracy cumulative score.

In addition to the hierarchical linear model test, a mixed model ANOVA blocking

on individuals was run to determine estimate scores for each test and differences between tests. According to the results, there was a significant difference between the tests, ($F(2,25)= 17.31, p= 0.0001$). The maximum score for each test was 12 and the average score for the pretest was 5.6913, 7.62 for posttest 1 and 8.6068 for posttest 2 (see Table 4.2). Further, a post hoc tukey test revealed differences between tests (see Table 4.3). Students improved dramatically from the pretest to posttest 1. There was a statistically significant difference between the pretest and posttest 1 and posttest 2, but there was no statistically difference between posttest 1 and posttest 2. Students gained so much the first semester that there was little to gain the second semester. Furthermore, it seemed that even one semester of phonics instruction made a difference for students. The statistically significant difference between the pretest and posttest 1 and 2 provides support for Ehri's (2004) argument that systematic phonics instructions helps students read words accurately by attending to the letters and the sounds that each of the phonemes represent.

The results of the ANOVA indicate that students improved within the first semester, but did not show as much improvement the second semester.

Table 4.2

ANOVA

Time	Test	Average	S.E.	DF	T-value	P Value
1	Pretest	5.6913	0.4192	25	13.58	0.0001
2	Posttest 1	7.6200	0.3928	25	19.40	0.0001
3	Posttest 2	8.6068	0.4056	25	21.22	0.0001

Total maximum score=12

Overall test of time was ($F(2,25)=17.31, p<0.0001$)

Table 4.3

Tukey Adjusted Differences between Tests

Pair	Estimate differences	P-value
Pre-test & Posttest 1	1.9287	0.0019
Pre-test & Posttest 2	2.9154	0.0001
Posttest 1 & 2	0.9868	0.1246

The Reading Horizon's test: The phoneme section. The third section of the Reading Horizons test was examined. This section measured the student's ability to decode phonemes by reading nonsense words. Students took a pretest at the beginning of the first semester, a posttest at the end of that semester and a second posttest at the end of the second semester, only two tests were looked at: the pretest and the second posttest. The reason for this was that the data for posttest 1 was lost. To determine whether there was a significant difference and improvement between the pretest and second posttest, a mixed-model ANOVA blocking on individuals was run on the data. The results on this analysis revealed a statistically significant difference between the pretest and the second posttest ($F(1,12)= 55.21, p=.0001$). Table 4.4 illustrates the average scores of the pretest and posttest. The results suggest that phonics instruction helps students make connections from letters to phonemes. By reading nonsense words, it was confirmed that students applied phonics rules to decode, instead of using background knowledge to read words they may have already known. Indeed, once these students explicitly learned phonics rules, they were able to decode words accurately.

Table 4.4

Reading Horizons Test: Phoneme Score

Test	Average	Standard Error	D.F.	T-Value	P-value
Pretest	74.78	1.6252	12	46.02	<.0001
Posttest	88.9267	1.5214	12	58.45	<.0001

Instrument Battery #2

The oral reading of pretest/posttest. The oral reading version of the pretest/posttest was another test that answered the first question. Both the experimental and control groups read a passage out loud with five target decodable words. There were a total of sixteen target phonemes for the read out loud pretest and seventeen target phonemes for the read out loud posttest. A total of 26 students' recordings were listened to, therefore a total of 224 phonemes were looked at for both the pretests and posttests by one rater. A second rater scored 12% of these items to establish inter-rater reliability. There was a 93% agreement between raters. Raters listened to each recording, identified each target word and indicated whether students pronounced correctly each phoneme of the five target words. Raters marked an X to indicate if the phoneme was pronounced correctly or a 0 if it was not.

An ANOVA was run on the vocabulary scores to see if the groups were similar. Results indicated that the groups were similar ($F(1,23)= 0.17, p= .7395$), which indicates that no group had an advantage in knowledge. Furthermore, another ANOVA was run to see if groups were similar. Results indicated that both groups were indeed similar ($F(1,23)=1.86, p= .1856$). An ANCOVA was run to determine if there was a statistically

significant gain between the pretest and posttest scores of the control and experimental groups. There were two covariates, the first vocabulary section scores of the tests and the pretests scores. The second covariate was the pretest scores.

In the ANCOVA, the results indicated that neither of the covariates were significant. Results of the vocabulary pretest scores section did not predict gain on the read out loud test ($F(1,21)=0.22, p=0.6429$); for the pretest scores, the results were not significantly different between the control and experimental ($F(1,21)=2.29, p=.1452$). The control group had a 2.0272 gain in decoding words accurately between the pretest and posttest and the experimental group had a 0.7818 gain. According to these results, explicit systematic phonics instruction does not affect L2 students' word recognition accuracy. It does not seem that explicit systematic phonics instruction helps students read passages more accurately. Although this is what the results are indicating, it may seem that there may be a mismatch between the exam and practice exercises performed during class. Students learn phonics on the Reading Horizon software and practiced with the phonics instructor for two semesters. The first semester was designed for students to learn the rules and the second semester was designed for students to implement the rules by reading passages. Although that was the design of the study, students did not practice reading passages the second semester due to an intervening variable. Due to administrative decisions, new students who were not part of the experimental group were assigned to the experimental class. This caused both the experimental students and new students to review many of the lessons by reading isolated words instead of practicing the rules by implementing them in passage reading. In conclusion, the experimental group did not practice reading passages as intended. Perhaps this intervening variable is the

cause of why the experimental group did not perform as well as anticipated. The experimental group did not have many opportunities to read passages and practice decoding words in these passages.

Results of Question 2

Question 2: To what extent does explicit systematic phonics instruction affect lower level adult L2 students' fluency, in terms of reading rate and comprehension?

The second research question was posed to determine whether explicit systematic phonics instruction helps students read faster and comprehend. The silent pretest/posttest from Instrument Battery #2, which was designed by the researcher, was the only test that measured reading rate and comprehension. As mentioned previously, students read a passage silently while the computer timed them, and once finished, students answered five comprehension questions.

Instrument Battery #2

The silent pretest/posttest. An ANOVA was done on the pretest scores to show whether groups were different. The difference in groups on the pretest scores was not quite significant ($F(1,23)=4.21, p=.0518$). An ANCOVA was run to determine whether explicit systematic phonics instruction increases reading rate. There was one covariate. The researcher considered the pretests scores as a covariate.

Furthermore, the ANCOVA (see Table 4.5) results indicate that there was no significant differences between the two groups in their gain between the pretest and posttests ($F(1,22)=2.41, p=0.1347$). Results revealed that the pretest scores did predict gain between the pretest and posttest scores ($F(1,22)=6.47, p=.0185$).

Table 4.5

ANCOVA

Variable	DF	F Value	P Value
Pretest score	1	6.47	0.0516
Group	1	2.41	0.1347

Although there were no statistically significant differences between groups and gain between the pretest and posttests, results reveal that the experimental group increased their reading rate by 24.143 words per minute (wpm). The control group, on the other hand, decreased their score by 24.78 wpm (see Table 4.6).

Table 4.6

Pretest & Posttest Reading Rates

Group	Pretest Reading Rate	S.E.	Posttest Reading Rate	S.E.
Experimental	160 sec. 97.110 wpm	14.43	168.74 sec. 121.253 wpm	13.44
Control	207.60 sec 125.373 wpm	17.67	203.39 sec. 100.593 wpm	16.74

Furthermore, an ANOVA was run on the pretest scores of the comprehension scores to determine if there were any differences between groups. Results indicate that there were no differences ($F(1,23)=0.09$, $p=0.7667$).

The researcher then ran an ANCOVA on the comprehension scores. After students read the silent texts on both the pretest and posttests, they answered five comprehension questions about the text. Anderson (2008) defines reading fluency as the combination of both reading rate and comprehension; hence, the comprehension scores

were also considered as part of reading fluency. The pretest scores were considered as a covariate. The results of the ANCOVA revealed that the pretest scores did not predict gain in reading rate ($F(1,22)=0.00, p=.9911$). Furthermore, the results of the ANCOVA did not show a statistically significant difference between the groups in their gain between the comprehension pretest and posttest scores ($F(1,22)=0.88, p=0.3595$). According to the results, both groups increased in comprehension but the results were not statistically significant.

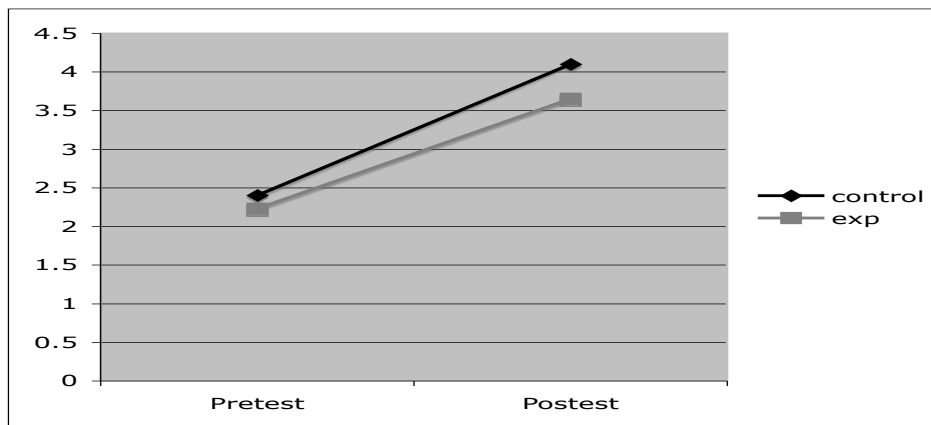


Figure 4.2 Comprehension scores

Qualitative Data: Surveys

In order to triangulate results, students from the experimental group were asked to take a survey to evaluate their performance on and opinion of the phonics program. Although not all exams indicated positive effects on extended explicit systematic phonics instruction, the researcher found it important to become aware of the students' self-evaluation performance and evaluation on the phonics program. All students were asked to take two surveys. One survey was taken after the first semester and the second survey was taken after the second semester. Ten students took the first survey at the end of the first semester. All of these students indicated that explicit systematic phonics instruction

helped them read better (See Table 4.7). Eight of these students indicated that phonics instruction helped them specifically with decoding words. Two stated that explicit systematic phonics helped them learn unknown vocabulary words.

Table 4.7

Survey 1

Total students	Phonics helped	Phonics helped to decode.	Phonics helped with vocabulary
10	10	8	2

The second survey was taken after the study was finished. Only five students took the second survey. The main reason that only five students replied to the survey was that these students received the survey after semester had ended and taking the survey was not a factor on receiving credit for their grade. As listed in Table 4.8, four students stated that explicit systematic phonics instruction helped them. One student did not finish the survey and did not respond to the last five questions. Two students indicated that explicit systematic phonics instruction helps with pronunciation. One student stated that explicit systematic phonics instruction was effective and one student did not respond. Four students stated that explicit systematic phonics instruction helped them read faster. Overall, the surveys indicate the explicit systematic phonics instruction helped students to decode words and help them increase reading rate.

Table 4.8

Survey 2

Total students	Phonics helped	Phonics helped with decoding	Phonics helped with reading rate
5	4	2	4

Conclusion

The results of the study do not provide significant evidence that extended explicit systematic phonics instruction influences L2 students' fluency in terms of decoding and reading rate and comprehension. Although the Reading Horizons tests provided significant evidence that explicit systematic phonics instruction increased L2 students' fluency in terms of decoding, it is difficult to say why there was no significant difference between the control and experimental groups on the other tests.

CHAPTER FIVE

IMPLICATIONS

Research Questions

This study was an attempt to investigate whether extended explicit systematic phonics instruction affects lower level adult L2 students' reading ability. The following - research questions drove the research design:

- 1) To what extent does extended explicit systematic phonics instruction affect lower level adult L2 students fluency, in terms of decoding?
- 2) To what extent does extended explicit systematic phonics instruction affect lower level adult L2 students' fluency, in terms of reading rate and comprehension?

These questions arose after investigating the history of reading in L1 settings.

According to L1 research (Adams, 1990; Ehri, 2004; Pikulsi, 2006), phonics instruction has had a positive effect on young L1 learners. In fact, students in L1 settings who learn systematic phonics instruction read more fluently than students that do not learn phonics instruction in a systematic way (Ehri, 2004). Further, research conducted in L1 settings state that there have been positive effects to teaching phonics in a balanced approach, using both synthetic and analytic approaches. By doing this, students can learn explicit rules as well as learn words which they then have to analyze to learn target phonetic sounds (Ehri, 2004). Lastly, L1 research states that students who receive explicit instruction in phonics read at a faster rate than students who do not receive this type of direct instruction (Foorman et al., 1998). The results from all these studies indicate that phonics instruction has been a tool that helps L1 students read fluently.

Because there has been extensive research on phonics instruction conducted in L1 settings and results have been positive in this setting, the researcher designed this study to investigate the effects explicit systematic phonics instruction has on lower level adult L2 students on word recognition accuracy and word recognition reading fluency.

Results

Question 1: To what extent does extended explicit systematic phonics instruction affect lower level adult L2 students' fluency, in terms of decoding?

In brief summary, students took two tests to measure decoding, Instrument Battery #1 and Instrument Battery #2. Results from Instrument Battery #1 or the Reading Horizons test, which was only taken by the experimental group, indicated that phonics instruction did indeed help students decode words. A cumulative score showed that students statistically improved the first semester but did not statistically improve the second semester. Although they did not statistically improve the second semester, results do indicate that phonics instruction made a difference in as little as one semester. It seems that students gain so much the first semester that they did not have much more to improve the second semester. Furthermore, results indicated that students show a statistically improvement while reading nonsense words; this states that students indeed apply phonic rules to decode words correctly.

Results from Instrument Battery #2 tests, which were taken by both the control and experimental groups, did not show a statistically significant difference between the groups. Students read a passage out loud to determine whether they were decoding the five target decodable words. The results showed that the although neither groups showed a statistical improvement, the control group did have a 2.0272 gain between the pretest

and posttest. It may seem that there was a mismatch between the tests and practice exercises conducted in class. Students were not given long passages to read during the second semester due to intervening variables.

Question 2: To what extent does extended explicit systematic phonics instruction affect lower level adult L2 students' fluency, in terms of reading rate and comprehension?

Results from Instrument Battery #2 tests did not show a statistically difference between groups in their gain between the pretest and posttests in terms of reading rate. More specifically, results showed that the experimental group increased their reading rate by 24.143 words per minute, whereas the control group decreased their score by 24.78 words per minute. Both groups did increase in comprehension but the results were not statistically significant.

Limitations

There are eight limitations in this study. One of the limitations is sample size. Because there were not many students who tested into the low intermediate class the first semester of the study, the researcher did not assign a control group. The second limitation is attrition. There were not enough students to continue in the study the second semester, which decreased the sample size. Thirty-four students began the first semester in the experimental group, but due to attrition, only fifteen finished the study; likewise, eighteen students were part of the control group, but only 11 finished the study. One cannot come to a certain conclusion about the results by having a small sample size.

The third limitation in this study is the reality of program administration. Although the study was carefully designed by the researcher, plans were not followed due to decisions of administrators. This study was designed to matriculate all the returning

students from the experimental group into the experimental class the second semester, but due to administrative decisions, this was not possible. New students were assigned to the experimental classes due to motivational reasons. In past semesters, administrators have seen motivational levels drop from students who are in classes with returning students only. For this reason, administrators decided to mix returning and new students into the experimental classes.

Fourth, students from the experimental group did not become automatic in decoding words. The purpose of the second semester was for students to become automatic in the rules so they can implement phonic rules they learned from the first semester to long passages. They did not move from reading isolated decodable words, to decodable passages. Because the experimental group had new students matriculated in class, phonic rules had to be re-taught so all students could participate in class. The phonics instruction became a review session for the experimental group instead of a time of implementation and progression.

Fifth, because students were asked to take the second survey after the study was finished, only five students responded to the survey. Five surveys is not enough feedback to come to any type of conclusion about whether students viewed phonics instruction helpful or not.

Sixth, Coady (1979) explains that novice readers focus on bottom-up strategies, whereas fluent readers shift their attention on top-down strategies when they read. Given that many (if not most) adult ESL readers are already fluent in reading their native language, they may transfer these bottom-up skills from their native language to English, especially if they use the same alphabet with similar sounds attached to the letters. This

may have happened in the current study. Students from the experimental group may have focused more on top-down strategies, while transferring their bottom-up strategies from their native language, especially while they took the oral reading tests (Instrument Battery #2). Students may have focused on using top-down strategies to comprehend the passages instead of using phonics they learned in class to decode accurately.

Seventh, there were only five comprehension questions after each reading for the pretest and posttests. Although the reading passages were short and the researcher could not extract more than five questions per passage, five questions are not enough to adequately measure comprehension. Perhaps more than one passage should have been included, thus allowing for more than five comprehension questions.

Eighth, although decoding is a necessary prerequisite to comprehension and essentially reading fluency, comprehension of a word is also essential. Both form and meaning are essential components to gain reading fluency and it seems that this study only measured form. In this study, results indicated that students did indeed use phonics to decode words, but decoding a word requires lexical access; phonics instruction does not automatically attach meaning to the words that students decode. This study did not measure students' comprehension.

Further Research

These findings and limitations of this study offer optimistic avenues for further research.

1. Many of the L1 studies were conducted in at least one-year period. Perhaps a long period of explicit instruction yields better results in L2 settings. Not only do students have enough time to learn phonic rules, they have time to implement

- each rule in isolation as well as in passage reading. Furthermore, if phonics instructions is extended to a longer period of time, students may make connections between decoding *and* making meaning.
2. Focusing on explicit systematic phonics instruction every day in class may result in better results. Students in the current study only practiced once a week with an instructor, which limited their application of the rules. Perhaps focusing on the rules everyday may foster independent application for the students. After all, L1 studies that indicated success in extended explicit systematic phonics instruction lasted for a full school year (Foorman et al., 1998; Lovett et al., 2003). Students had plenty of time to practice and become automatic in their strategies. Perhaps sufficient time and practice is a key element in becoming fluent
 3. This research investigates whether explicit systematic phonics affect lower level adult L2 students' fluency in terms of decoding and reading rate and comprehension, but we do not know whether phonics instruction positively or negatively impacts top-down strategies.
 4. L1 research states that educators now favor and implement an interactive approach to teaching reading. L2 researchers could also implement an interactive approach to determine whether it has a positive or negative effect on reading fluency.
 5. The current study indicates that phonics instruction does indeed help students decode. Decoding helps with two things. It helps with recognizing existing orally-based words and it helps with properly encoding new words (see Figure 5.1). Hence, phonics helps L1 students with recognizing existing orally-based

words because most likely L1 students have these words in their lexicon, whereas there is a chance that L2 students have it. Properly encoding new words may help L2 learners not only decode these words, but also learn them. Gardner (2007) states that children's ability to use context cues, dictionary definitions, or a combinations of both helps students understand unfamiliar words. Perhaps future researchers could investigate whether phonics instruction coupled with these strategies help students gain comprehension.

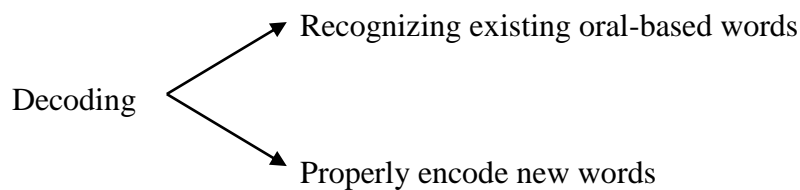


Figure 5.1 The importance of decoding

6. Phonics may have a different effect on learners with different writing systems. Alphabetic and logographic learners may reveal different results when learning phonics instruction. Perhaps future researchers could investigate whether phonics instruction coupled with these strategies help students gain comprehension.

Conclusion

While the results of this study did not indicate that explicit systematic phonics instruction increases students' word recognition reading fluency it did show that phonics did help students decode word accurately while reading words in isolation. It is suggested that further research be conducted to determine whether explicit systematic phonics instruction truly enhances reading speed and word recognition accuracy.

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APPENDIX A: LEVEL 2 SILENT PRETEST

Please choose the correct answer.

1. Filthy
 - a. Angry
 - b. Dirty
 - c. Tired
 - d. Busy
 - e. I don't know

2. Pluck
 - a. To turn on
 - b. To pull out
 - c. To run away
 - d. To mix up
 - e. I don't know

3. Topple
 - a. To run
 - b. To jump
 - c. To fall
 - d. To swim
 - e. I don't know

4. Surmise
 - a. To fight
 - b. To drink
 - c. To estimate
 - d. To purchase
 - e. I don't know

5. Trace
 - a. Information
 - b. Argument
 - c. Question
 - d. Evidence
 - e. I don't know

The Tree and the Plant

At the edge of a forest stood a big tree. Its branches spread out majestically and so did its roots. It shielded people from the sun under its shady leaves, and provided shelter to countless birds and other small creatures.

At the foot of the tree grew a little plant. The plant was willowy and delicate, and tended to topple at the touch of the slightest breeze. One day, the two neighbors were having a little chat.

"Well, little one," said the tree to the plant, "Why do you not plant your feet deeply in the ground, and raise your head boldly in the air as I do?"

"I see no need to do so," said the plant. "Actually, I think I may be safer this way."

"Safer? Are you suggesting that you're safer than I am? Do you know how deep my roots are buried, how thick and strong my trunk is? Even if two men hold hands they would not be able to surround my trunk. Who could possibly pluck me by the roots or bow my head to the ground?" And the tree turned away from the plant in a great huff.

One evening a great hurricane arose in the region. It hurled the trees off their roots and almost completely destroyed the forest. It uprooted the tree and hurled it away with great force.

When the storm had passed, the villagers living nearby surmised the damage. Mighty trees were now reduced to stumps or worse. The forest was filthy with their carcasses. But there was one exception. The plant had been tossed and turned under the fury of the hurricane, but when the hurricane ended, it stood upright again. No trace remained of its mighty neighbor though.

Word Count: 300 words

Please choose the correct answer.

6. Filthy
 - a. Angry
 - b. Dirty
 - c. Tired
 - d. Busy
 - e. I don't know

7. Pluck
 - a. To turn on
 - b. To pull out
 - c. To run away
 - d. To mix up
 - e. I don't know

8. Topple
 - a. To run
 - b. To jump
 - c. To fall
 - d. To swim
 - e. I don't know

9. Surmise
 - a. To fight
 - b. To drink
 - c. To estimate
 - d. To purchase
 - e. I don't know

10. Trace
 - a. Information
 - b. Argument
 - c. Question
 - d. Evidence
 - e. I don't know

Choose the correct answer for each question.

11. What is the main idea of the story?
 - a. Help others who ask for help.
 - b. Be more confident in your abilities.
 - c. Don't think you're better than others.
 - d. Do not be mean to other people

12. Why did the tree say he was safer than the plant?
 - a. He had many branches.
 - b. There were many trees around him.
 - c. He buried his roots deep.
 - d. The villagers took care of him.

13. The tree is NOT _____.
 - a. majestic
 - b. thick
 - c. strong
 - d. willowy

14. Why did the plant think he was safe?
 - a. He was next to the tree.
 - b. The wind did not bother him.
 - c. Villagers were going to protect him.
 - d. He did not have many branches.

15. Why was the tree proud of himself?
 - a. He was the only tree that survived a storm.
 - b. He buried his roots deep.
 - c. He was friends with the plant.
 - d. He protected many villagers during a storm.

APPENDIX B: LEVEL 2 SPEAKING PRETEST

Please choose the correct meaning for each vocabulary word.

1. Quest
 - a. A journey
 - b. A mountain
 - c. A notebook
 - d. A medicine
 - e. I don't know

2. Refrain
 - a. To obey
 - b. To listen
 - c. To refuse
 - d. To see
 - e. I don't know

3. Ripple
 - a. To hold
 - b. To splash
 - c. To break
 - d. To drink
 - e. I don't know

4. Cease
 - a. To stop
 - b. To learn
 - c. To look
 - d. To teach
 - e. I don't know

5. Decipher
 - a. To argue
 - b. To ask
 - c. To promise
 - d. To understand
 - e. I don't know

The Student and The Teacher

There once lived a brilliant student. He was on a quest to acquire more and more knowledge. Then he heard of a great teacher and decided to go on a quest to find her. On arriving at the teacher's feet, he said, "Master, teach me." The master received the student with a smile. She inquired about him. She asked in detail all that the student had learned till then.

Later, she asked her assistant to get tea for the two of them. A big pot of tea with two cups and saucers was brought before the master. The student volunteered to serve the tea. The master refrained his offer with a smile.

She asked the student to lift up a cup and saucer so that she could serve him tea. The student lifted his cup and saucer. The master started pouring tea into his cup. The tea filled the cup. The master did not stop. She kept pouring the tea. It rippled out of the cup into the saucer. Still the master kept on pouring the tea. The student was surprised. When the tea started overflowing the saucer too, the startled student said "Master, you are serving tea more than the cup can hold." The master smiled and ceased from serving him tea.

She said, "Dear student, the same is the case with you. You have learned enough. Your knowledge is overflowing. Put this into practice rather than wanting to acquire more knowledge, which will go to waste like this tea."

The student deciphered the importance of practicing what is learned and left a wiser man.

Word Count: 271

Please choose the correct meaning for each vocabulary word.

6. Quest

- a. A journey
- b. A mountain
- c. A notebook
- d. A medicine
- e. I don't know

7. Refrain

- a. To obey
- b. To listen
- c. To refuse
- d. To see
- e. I don't know

8. Ripple

- a. To hold
- b. To splash
- c. To break
- d. To drink
- e. I don't know

9. Cease

- a. To stop
- b. To learn
- c. To look
- d. To teach
- e. I don't know

10. Decipher

- a. To argue
- b. To ask
- c. To promise
- d. To understand
- e. I don't know

Please choose the best answer for each question.

11. What is the main idea of the story?
 - a. A student has tea with his teacher.
 - b. A teacher prepares a good lesson.
 - c. A teacher tells her student a story.
 - d. A student learns from his teacher.

12. Why does the student want to find the teacher?
 - a. To deliver his homework.
 - b. To learn more knowledge.
 - c. To drink some tea.
 - d. To assist the teacher.

13. Why does the teacher serve the student tea?
 - a. The teacher is thirsty.
 - b. The teacher is kind.
 - c. The teacher wants to teach a lesson.
 - d. The teacher wants to have lunch.

14. Who brought the tea?
 - a. The teacher
 - b. The student.
 - c. The assistant.

15. What is the message of the story?
 - a. Apply the knowledge you already have.
 - b. You are never too old to learn.
 - c. It is good to ask many questions.
 - d. Ask your teacher for homework.

APPENDIX C: LEVEL 3 SILENT POSTTEST

Please choose the correct answer for each vocabulary word.

1. Gorge
 - a. a canyon
 - b. a forest
 - c. a field
 - d. a spring
 - e. I don't know
2. Collaboration
 - a. playing together
 - b. working together
 - c. hunting together
 - d. laughing together
 - e. I don't know
3. Hedful
 - a. peaceful
 - b. beautiful
 - c. mindful
 - d. careful
 - e. I don't know
4. Gaze
 - a. to question
 - b. to walk
 - c. to take picture
 - d. to look
 - e. I don't know
5. Ruminare
 - a. to talk
 - b. to work
 - c. to ponder
 - d. to remember
 - e. I don't know

A long time ago, there was a man who always killed wild animals in one shot. He never missed and he never shot an animal except when he was hungry.

One morning, he took his gun and headed off to the forest to hunt. As he rested, he saw a bear up on the mountainside. He quickly reached for his gun. As he took aim, he noticed that the bear was walking along a thin ledge on the side of the mountain. If he shot the animal now, it would fall into a deep gorge and would be of no use to him. So he put his gun down and gazed at the bear.

Suddenly, he noticed that from the other side of the ledge a small bear had started walking along. The hunter thought to himself, "Oh! Both the bears cannot cross the ledge at the same time. When they come face to face, they will fight and both will fall into the gorge. What a waste." He ruminated shooting one of them in order to save the other, but realized that the noise of the gun would scare the other and both would fall and die. He waited and watched.

As the big and small bear reached face to face, they stopped and started to talk to each other. The hunter waited for them to start fighting. To his surprise, the big bear sat down and allowed the small bear to climb his back and cross over. Then the big bear got up and walked across the ledge.

The hunter was overwhelmed with emotion and thought, "These animals know more about collaboration and courtesy than man. We humans keep fighting with each other over the smallest things. These animals are more heedful than us." From that day, he stopped hunting and started spending all his time in the forest to try and understand how the animals lived and communicated with each other. He lived in the forest for many years and tried to save the animals from being hunted.

Word Count: 341

Please choose the correct answer for each vocabulary word.

6. Gorge
 - a. a canyon
 - b. a forest
 - c. a field
 - d. a spring
 - e. I don't know
7. Collaboration
 - a. playing together
 - b. working together
 - c. hunting together
 - d. laughing together
 - e. I don't know
8. Heedful
 - a. peaceful
 - b. beautiful
 - c. mindful
 - d. careful
 - e. I don't know
9. Gaze
 - a. to question
 - b. to walk
 - c. to take picture
 - d. to look
 - e. I don't know
10. Ruminare
 - a. to talk
 - b. to work
 - c. to ponder
 - d. to remember
 - e. I don't know

Choose the correct answer for each question.

11. What would be a good title for this story?
 - a. The man who hunted bears.
 - b. The hunt that never happened.
 - c. Bears hunting men.
 - d. Bears hunting in a forest.

12. When did the hunter shoot animals?
 - a. During hunting season.
 - b. Every day; he lived in the forest.
 - c. Never; he was friends with animals.
 - d. Only when he was hungry.

13. Why did the hunter decide to live in the forest?
 - a. He wanted to continue hunting.
 - b. He wanted to protect animals.
 - c. He wanted to study rare animals.
 - d. He wanted to take pictures of bears.

14. What did the hunter do when he saw the two bears?
 - a. He shot both bears.
 - b. He shot one bear.
 - c. He watched them.
 - d. He ran away from them.

15. What is the message of the story?
 - a. It is good to hunt animals for food.
 - b. Animals are lazy creatures.
 - c. Thin ledges are dangerous.
 - d. Men should learn from animals.

APPENDIX D: LEVEL 3 SPEAKING POSTTEST

Please choose the correct meaning for each vocabulary word.

1. Stifle
 - a. To end by force
 - b. To make something larger
 - c. To get excited
 - d. To think of an idea
 - e. I don't know

2. Cede
 - a. To become
 - b. To trust
 - c. To surrender
 - d. To discover
 - e. I don't know

3. Pansophist
 - a. Someone who is grateful
 - b. Someone who is careful
 - c. Someone who thinks he is good-looking
 - d. Someone who thinks he knows a lot
 - e. I don't know

4. Bleacher
 - a. A type of color
 - b. A type of car
 - c. A classroom
 - d. A stadium
 - e. I don't know

5. Quell
 - a. To become quiet
 - b. To turn on a car
 - c. To look for something
 - d. To forget something
 - e. I don't know

Rediscovery

Julie stifled rolling her eyes because she knew her dad was watching her. She wondered why she was at a stock-car race, even though she already knew the answer.

Yesterday, when her dad got home, he had shouted, "Hey Jules, I have a surprise for you—we have special tickets!

Julie wondered what it could be . . . tickets for the ice-skating show that had just come to town or maybe that newly-released blockbuster movie at the theater?

"It's a car race out at the local track! I know you've never been, so I thought it would be fun!"

Julie stared at her dad, wondering if he was joking. His eyes glowed with such excitement. She couldn't believe he was such a pansophist. He really believed she wanted to go. What she really wanted to do was cede her ticket, but she did not have the heart to disappoint him. "That sounds just . . . great," she said with a fake smile.

Now she sat in the heat on the hard seats as the sun beat down on her, surrounded by men in tattered baseball caps. She knew that her friends would laugh if they could see her now, because everyone knows stock-car races are not popular.

The bleachers began to vibrate, and her dad put his arm around her shoulders. "It's about to start, honey—look at them warming up!"

The cars leapt into action. Julie stood next to her father on the bleachers, screaming and cheering as the cars dashed by, blurring into a rainbow river of colors. Caught up in the action, she maintained standing until the cars completed their final lap. When the winner passed the flag, Julie shared a huge hug with her dad. The other cars started to quell their engines.

As they made their way out of the stands, her dad said, "I knew you'd love it!" Julie put her hand in his big hand. She had completely forgotten her past love of cars. Her love for cars was restored and she had become a true fan.

Word count: 346

Please choose the correct meaning for each vocabulary word.

6. Stifle

- f. To end by force
- g. To make something larger
- h. To get excited
- i. To think of an idea
- j. I don't know

7. Cede

- k. To become
- l. To trust
- m. To surrender
- n. To discover
- o. I don't know

8. Pansophist

- a. Someone who is grateful
- b. Someone who is careful
- c. Someone who thinks he is good-looking
- d. Someone who thinks he knows a lot
- e. I don't know

9. Bleacher

- a. A type of color
- b. A type of car
- c. A classroom
- d. A stadium
- e. I don't know

10. Quell

- a. To become quiet
- b. To turn on a car
- c. To look for something
- d. To forget something
- e. I don't know

Please choose the best answer for each question.

11. What is the main idea of the story?
 - a. Julie is happy to go on vacation.
 - b. Julie's dad bought tickets to the movie.
 - c. Julie goes to a car race with her dad.
 - d. Julie enjoys the hot weather.

12. Julie hoped that her dad bought her tickets to a _____
 - a. Stock-car race.
 - b. Blockbuster movie.
 - c. Fashion show.
 - d. Rock Concert.

13. Why did Julie think that her friends would laugh at her?
 - a. She was wearing a tattered baseball cap.
 - b. She was going to a movie with her dad.
 - c. Stock-car races are not popular.
 - d. Ice skating is not popular.

14. Why was Julie screaming?
 - a. She was excited
 - b. She was scared.
 - c. She was embarrassed.
 - d. She was mad.

15. Why did Julie remain standing with her dad?
 - a. She was tired of sitting.
 - b. She was ready to leave.
 - c. She became a true fan.
 - d. She could not see.