Oral Reading Fluency: Can it be Used as a Predictor of Reading Comprehension Proficiency for English Language Learners?

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Oral Reading Fluency: Can it be Used as a Predictor of Reading Comprehension Proficiency for English Language Learners?

Approved for the Faculty

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ABSTRACT

The purpose of this correlational research study was to determine the extent to which a relationship existed between oral reading fluency and reading comprehension for ELLs at WMS. The researcher individually administered the QRI-II (Qualitative Reading Inventory-II) to a convenience sample of 10 6th grade ELLs and a random sample of 10 7th grade ELLs and 10 8th grade ELLs. No significant relationship between oral reading fluency and reading comprehension was found for the ELLs on text given at their instructional word recognition level in context. To more accurately predict a student's reading comprehension proficiency, assessments that indicate a student's oral language development, vocabulary, and background knowledge should be considered and could include a cloze, silent reading test and a listening comprehension test.

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CHAPTER 1

Introduction

Background for the Project

> Most middle and high school language-minority students fail to develop to their fullest potential. As a result, they become disaffected, drop out of school, and have to settle for low-paying jobs or no job at all because they have little or no access to either high school or a college education (Calderon, 2007, p. 4).

The above statement by Calderon was especially concerning in view of the fact that the population of language minority children and youth speaking a language other than English at home in the United States grew dramatically in recent years. The National Center for Education Statistics (2006) reported that 6% or six million children were language minority students in 1979. This number grew to 14% or 14 million nationwide in 1999. Of these language minority students, 72% spoke Spanish in the home. According to Haycock (2007), with a projected increase in immigration nationwide, these numbers would continue to rise. Consequently, the present significant disparity in academic achievement between an English language learner (ELL) and their peers who spoke English as a first language must be addressed to provide all students the opportunity for a successful future.

In December of 2000, the National Reading Panel (NRP) sponsored by the National Institute of Child Health and Human Development (NICHD) published a report documenting an extensive research review of present reading programs and approaches. The NRP identified five necessary research-based elements for effective reading instruction that enabled students with English as their first language to develop the skills to become successful lifelong readers. These elements included phonics, phonemic awareness, reading fluency, vocabulary, and reading comprehension. However, the NRP did not specifically address effective reading instruction for ELLs in their findings. Consequently, the Institute of Education Sciences with funding from government agencies such as the NICHD selected another panel of experts to conduct a research review focusing specifically on literacy development of language minority children and youth, which was called the National Literacy Panel on Language-Minority Children and Youth. This panel determined that in addition to the implementation of an effective reading instruction program outlined by NRP, oral language development and other considerations must also be addressed during instruction for ELLs to become successful readers (August & Shanahan, 2006).

Many ELLs have developed skills in phonics, phonemic awareness, and word recognition comparable to that of their peers who spoke English as a first language (August, 2006; Lindsey, Manis, & Bailey, 2003). However, according

to Stanovich (1994) their reading comprehension and vocabulary skills lagged behind (as cited in Lesaux and Geva, 2006). Oral reading fluency (the ability to read words aloud with speed, accuracy, and expression) was strongly correlated with reading comprehension. Researchers reasonably concluded that if a student did not have to focus on decoding the words in a text, the student could give more thought to the meaning of the words and the text as a whole ((Reis, Eckert, McCoach, Jacobs, & Coyne, 2008). Although ELLs decoded and read fluently, other factors clearly impacted their ability to successfully comprehend a text. Bernhardt (2000) found that such factors as vocabulary, language structure and meaning, background knowledge, and textual knowledge represented other key factors in successful reading comprehension, especially for ELLs (as cited in Lesaux and Geva, 2006).

The authorities cited above have addressed the importance of considering other significant factors impacting the ELLs' development of reading proficiency, especially reading comprehension, and, in doing so, have established the context of the present study.

Statement of the Problem

Oral reading fluency was used as an indicator of reading proficiency for ELLs at Washington Middle School (WMS) in 2007 - 2008. However, teachers noted that many ELLs who performed well on the oral reading fluency test had

difficulty comprehending text at a comparable or even lower reading level in the classroom during informal assessment. These students were also continuing to score significantly below their English as a first language (EFL) peers on the Reading WASL subtest.

Phrased as a question, the problem which represented the focus of the present study may be stated as follows: To what extent did a correlation exist between oral reading fluency and reading comprehension for ELLs? The answer to this question had significant ramifications for assessment and instruction for ELLs.

Purpose of the Project

The purpose of this correlational research study was to determine the extent to which a relationship existed between oral reading fluency and reading comprehension for ELLs at WMS as measured by the QRI-II (Qualitative Reading Inventory - II). To accomplish this purpose, a review of related literature was conducted, essential baseline data were obtained and analyzed, and related conclusions and recommendations were formulated.

Delimitations

The study was conducted at WMS with a convenience sample of ten 6th grade ELLs and a random sample of twenty 7th and 8th grade ELLs who had scored at a Level 3 on the Washington Language Proficiency-II Test (WLPT-II)

in the spring of 2008. Consequently, participating students were receiving instruction in English only in a district-wide reading intervention program for students performing one or more years below grade level. Some these students were also identified as having a specific learning disability in reading and were receiving additional support through Special Education. Ten students were selected from a 6th grade, 7th grade, and 8th grade reading intervention class, all of which were using the Highpoint Reading curriculum, levels A, B, and C respectively. Three subtests of the QRI-II were administered by the researcher individually to each student in the sample during the morning reading block in November and December of 2008. The word identification subtest was used only to identify the level at which to begin the oral reading fluency and reading comprehension subtests.

Assumptions

As the student population addressed in the study consisted of ELLs who had scored at a Level 3 on the WLPT-II, the assumption was made that a relationship did not exist between oral reading fluency and reading comprehension for ELLs as measured by the oral reading fluency and reading comprehension subtests of the QRI-II. A further assumption was made that the researcher (Yvonne Harrington), a veteran Special Education teacher with prior training and experience with similar oral reading fluency and reading

comprehension tests, was qualified to administer similar tests including the QRI-II to middle school students at WMS.

Hypothesis or Research Question

A significant relationship does not exist between oral reading fluency and reading comprehension for ELLs as measured by the oral reading fluency and reading comprehension subtests of the QRI-II.

Null Hypothesis

There will be a significant relationship between oral reading fluency and reading comprehension for ELLs as measured by the QRI-II for $p \leq$ at .05, .01, and .001 levels.

Significance of the Project

The results of the study would influence how ELLs would be assessed for reading proficiency with regard to reading comprehension in the future. Data produced might indicate a need for further study regarding other key factors involved in reading comprehension, namely, oral language development including vocabulary, semantics, and language structure; and background and textual knowledge. Reading instruction approaches and programs might also be reviewed in view of the findings.

Procedure

The procedures involved in the present study evolved in several stages. The researcher met with and received support for the study from the WMS Special Education department supervisor. Permission was granted to conduct the study and the procedure to be followed with regard to confidentiality of student test scores was discussed with the principal at WMS in August, 2008.

During September, 2008, the researcher met with the WMS Literacy Interventionist for recommendations regarding the most appropriate assessment instruments and also contacted a literacy specialist at the Educational Service District office (ESD 105). The literacy specialist from ESD 105 recommended the Qualitative Reading Inventory-II (QRI-II) for the assessment as it was available in the district and had been used effectively in the past.

In October, 2008, the researcher met with a 6th, 7th, and 8th general education language arts teacher from each grade level to explain the study and request a sample of ten ELLs from their lowest reading intervention block class who scored at a Level 3 on the spring WLPT-II. At this time, the researcher also met with the ELL teacher who organized the administration of the WLPT-II (Washington Language Proficiency Test) to explain the study and request a list of students. The ELL teacher was given a list of students from each of the selected grade level classes and asked to highlight those students who scored at a Level 3 on the

WLPT-II in the spring of 2008. A Level 3 score indicated that these transitional ELL students had passed the listening and speaking subtests of the WLPT.

In November, 2008, using the highlighted list of Level 3 ELLs, the researcher took a convenience sample of 10 students from a language arts block at the 6th grade level as there were only 10 ELL students in the block. The researcher then took a random sample of 10 students at the 7th grade level and 10 students at the 8th grade level who had scored at a Level 3 on the spring, 2008 WLPT-II. The names of the 7th and 8th grade level students were put in a box and ten names were randomly selected for each of those grade level classes. Consequently, the students sampled represent a convenience sample of ten 6th grade ELLs and a random sample of ten 7th grade ELLs and a random sample of ten 8th grade ELLs.

In November, December, 2008, and January 2009, the researcher tested students individually. The researcher used test results from the San Diego Word Recognition Test administered in September, 2008, to determine a starting point at each grade level. The word identification subtest score of the QRI-II was then used to determine the instructional reading level at which to administer the oral reading inventory passage to begin to assess oral reading accuracy, fluency, and comprehension at each student's instructional word recognition level in context. The researcher then individually administered one or more of the oral reading inventory passages of the QRI-II to each student to determine their instructional

word recognition level in context with the exception of six students. These students scored at the frustration level in reading comprehension at their independent word recognition level in context so, to avoid frustration, they were not tested at their instructional level in word recognition in context. The researcher determined each student's oral reading fluency for a passage by multiplying the total words in the passage by 60 and dividing the product by the total seconds it took the student to read the complete passage. The researcher collected and recorded both the fluency and reading comprehension subtest scores for each student in the sample on a class record sheet.

The researcher did not determine the overall reading instructional level, the level at which the student scored at the independent (98%) accuracy or instructional level in word recognition in context (90 – 97% accuracy) and the instructional level in reading comprehension (70 – 89% accuracy) for each student as this was not necessary to determine if a relationship existed between oral reading fluency and reading comprehension (Leslie and Caldwell, 1995). Furthermore, testing middle school Ells at their word recognition independent level in context until they reached their instructional level in reading comprehension would have most probably dropped their reading level too low to be appropriate according to a literacy specialist (R. Lewis, personal communication, January 15, 2009).

In November and December, 2008 and January, 2009, the researcher collected and recorded both the oral reading fluency and reading comprehension scores at each student's word recognition instructional level in context for each student in the sample on a class record sheet. In January, the researcher compiled and analyzed the data using the Pearson r measure to determine the extent to which a relationship existed between oral reading fluency and reading comprehension for ELLs as measured by the QRI-II at their instructional level for word recognition in context.

The researcher reported and interpreted the results and stated conclusions drawn from those results to complete the study in February, 2009.

Definition of terms

Significant terms used in the context of the present study have been defined as follows:

background knowledge. A student's background knowledge is that knowledge gained from his or her life experiences including their cultural beliefs and way of life, previous study, and relationships.

cloze reading test. Usually given a choice of words, a student chooses a word to complete sentences in a text.

correlational research study. According to Gay, Mills, and Airasian (2006), "Research that involves collecting data to determine whether, and to what degree, a relationship exists between two or more quantifiable variables" (p. 596).

decode. The reader uses the sounds associated with a letter and letter combinations to correctly pronounce and read a word.

dyslexia. Dyslexia is a term used for students who demonstrate difficulty with words. These students confused and reversed letters and words when reading words in text and in isolation and had difficulty spelling.

English Language Learners (ELLs). These were students representing a subset of language minority students who were limited in English proficiency.

English literacy. A student demonstrating English literacy was able to listen, speak, read, and write in English proficiently.

Learning Disabled. Learning Disabled students are of average intelligence and capable students who are not performing up to their ability even with specific instruction in foundational reading skills.

oral reading fluency. The student was able to read a text aloud with speed and accuracy.

phonemic awareness. A student with phonemic awareness could hear and identify individual sounds and combinations of sounds that have specific meaning. For

example, the word “cat” has three phonemes in a specific sequence which have meaning.

prosody. A student reads with appropriate volume, tone, emphasis, and phrasing.

phonics. A type of instructional reading strategy directly taught to students to enable them to pronounce and read words using letter sounds and syllables.

reading comprehension. Students demonstrate their understanding or comprehension of a written text in a variety of ways such as identifying the main idea of the text, answering fact and inference questions about a text, or summarizing the text.

semantics. Semantics involves understanding the meanings in language including the meaning of words, word parts (suffixes, prefixes, etc.), phrases, and idioms.

syntax. Syntax refers to how words are organized to make phrases, clauses, and sentences.

textual knowledge. A student with textual knowledge understands such elements of a text as it’s genre, such as a narrative; and how it’s organized with main characters, a setting, and a plot. In contrast, an expository text relates information in a format with headings and subheadings.

Acronyms

EFLs. English as a First Language Learners.

ELLs. English Language Learners.

IEP. Individual Education Plan.

NICHD. National Institute of Child Health and Human Development.

NRP. National Reading Panel.

NLPLMCY. National Literacy Panel on Language Minority Children and Youth.

ORF. Oral Reading Fluency.

QRI-II. Qualitative Reading Inventory II.

OSPI. Office of the Superintendent of Public Instruction.

WLPT-II. Washington Language Proficiency Test II.

WMS. Washington Middle School, Yakima School District, Yakima, WA

WPM. Words per minute.

CHAPTER 2

Review of Selected Literature

Introduction

The review of selected literature presented in Chapter 2 has been organized to address the following research topics:

The writer's investigation of the key elements of effective reading instruction for all students was a subject that received particular attention by the authorities cited.

The researcher also conducted an in depth investigation of effective reading instruction for English as a second language learners (ELL).

Finally, the literature allowed the investigator (Yvonne Harrington) to explore the related topic of reading instruction considerations for learning disabled students (LD).

Each of these research topics has been detailed on the following pages. The preponderance of research cited in Chapter 2 was current within the last five (5) years. Key resources utilized included Education Resources Information Center (ERIC), the Internet, and Pro Quest. Information obtained from hand search of selected materials was also incorporated.

Key Elements of Effective Reading Instruction for All Students

According to the report of the NRP (2000), to read efficiently and with understanding, students must have developed a set of specific skills involved in reading. There were five significant research-based elements needed in any reading program or approach for students to develop into lifelong readers, namely, phonics, phonemic awareness, reading fluency, vocabulary, and reading comprehension (McCardle, 2006). However, it was important to note that these were not the only important factors affecting reading proficiency, which may be the focus of further research by another panel of reading experts (Commission on Reading Research, 2007). To be proficient readers, students must first have learned the code of reading. Students must have developed the phonological awareness to recognize sounds and associate letters and letter combinations with those sounds (phonemic awareness and phonics). Students must also have learned letter names and rules that govern spelling and were able to apply these skills to decode words fluently. Most current reading instruction focused on these skills in the primary grades and even as young as pre-school (NRP, 2000).

By the intermediate elementary years, more emphasis was placed on reading fluency, vocabulary, and reading comprehension skills than phonics. In other words, students moved from focusing on learning to read in the primary grades to reading to learn by mid-Elementary and the upper grades (August,

2006). Clearly, reading fluency, or the ability to read words in text accurately and quickly, significantly impacted a reader's ability to understand the text. With efficient and fluent decoding, a student was able to focus more on the content of the text rather than the recognition of words, which enabled him to better comprehend what he had read. Developing a student's reading fluency, then, improved his reading comprehension of the text, which was the ultimate goal (Reis, et al, 2008).

In addition to reading fluency, a student's reading vocabulary also affected how well he or she was able to derive meaning from a text. According to the report of the National Literacy Panel on Language-Minority Children and Youth, English vocabulary knowledge was crucial for English reading proficiency. If a student did not know the meaning of key vocabulary in a text, it was difficult for that student to fully understand the text as a whole. Consequently, effective reading instruction programs also focused on developing the students' vocabulary knowledge using a variety of instructional strategies from direct instruction (e.g. pre-taught the word and it's meaning) to teaching meaningful word parts (e.g., prefixes, suffixes, roots), grammar (e.g., parts of speech), and context clues (e.g., used the text as a whole or in part to infer the meaning of words). Understanding the meaning of words and how they were used in a text clearly increased a student's comprehension of that text (Lesaux & Geva, 2006).

To read with accurate and complete comprehension, a reader must also have developed specific reading comprehension skills and strategies often referred to as metacognitive strategies (Bouware-Gooden, Carreker, Thomhill, & Malatesha, 2007; Calderon, 2007). Reading comprehension skills involved identifying the main idea and supporting details in a non-fiction text or summarizing the plot by re-telling the sequence of events in a narrative text. Being able to answer fact and inference questions about a text or finding information in the text using headings, subheadings, captions, and other structural elements of the text represented still other specific skills related to reading comprehension.

In addition to these traditional reading comprehension skills, metacognitive reading comprehension strategies needed to be taught as well such as students asking themselves clarifying questions as they read or summarized the important concepts in a text. Other strategies included the use of graphic organizers such as a Venn Diagram, which allowed students to compare and contrast important elements in a text or cognitive maps that allowed them to organize the information in meaningful and memorable ways (Calderon, 2007). According to the report of the NRP (2000), for students to have successfully comprehended a text, students needed to develop the ability to apply these

comprehension strategies to effectively analyze and interpret the text (Bouware-Gooden, et al., 2007).

A reading approach or program that developed the students' reading comprehension skills as well as their phonemic awareness, phonics, reading fluency, and vocabulary would have significantly increased the students' reading proficiency and prepared them to become lifelong readers. Other factors also clearly impacted reading proficiency such as connecting reading with writing or the time a student spent reading text of his or her choice, but these factors were not the focus of this discussion.

Effective Reading Instruction for English as Second Language Learners

Although the five key elements of reading instruction as identified by the NRP and mentioned earlier may also be applied to effective instruction with English language learners, a student's level of oral language development must also have been considered (August & Shanahan, 2006). According to McCardle (2006), the NRP "made a conscious decision not to include the scientific literature available in the development of language and literacy for those students learning to read in English for whom English was not their first native language" (Foreword). Consequently, another panel consisting of experts in reading, language development, bilingualism, research methods, and education was formed, namely, the National Literacy Panel on Language Minority Children and

Youth (NLPLMCY), to specifically examine and report on research literature regarding the development of literacy in children who were language minority students (McCardle, 2006). Their report defined literacy skills as pre-reading skills (e.g., concept of print, alphabetic knowledge, etc.), word level skills (e.g., decoding, word reading, nonsense word reading, and spelling) and text level skills (e.g., fluency, reading comprehension, and writing) (August & Shanahan, 2006).

As with English as a first language students, research indicated that ELL students benefited from explicit instruction in phonics, including those at risk ELL students (Lovett, DePalma, Fritjers, Steinbach, Temple, Benson, & Lacerenza, 2008). Developing a student's ability to read and write words using the letter sounds and combinations of sounds as well as word parts gave them a foundational and effective tool for decoding and spelling words. In fact, many English-language learners could demonstrate word recognition, decoding, and spelling skills at the elementary level comparable to those of their English-speaking peers (Lesaux & Geva, 2006; Lovett, M., et al, 2008). However, they lagged significantly behind them in their vocabulary and ability to understand what they read. Although phonics instruction benefited ELL students at all levels, it clearly represented only one aspect of a necessary multifaceted reading skills approach with upper elementary and higher ELL students (Calderon, 2007). This was due in part to several factors, especially their level of oral language

development, which included receptive and expressive language skills as well as phonology, vocabulary, morphology, and grammar. Oral language proficiency was especially significant with regard to developing strong reading comprehension skills (LaSaux & Geva, 2006). Therefore, reading must have been taught in a way that fostered oral English language development including the use of proven instructional strategies for English language learners (August & Shanahan, 2006; Lovett, et al., 2008,), which helped make input comprehensible. According to Krashen's theory of language acquisition (Jameson, 2003), ELLs must receive comprehensible input to successfully learn.

Along with their English-speaking peers, ELLs needed to develop their vocabulary to become proficient readers (Calderon, 2007). Unfortunately, English-language learners usually began school at a significant disadvantage, and lacked the depth and breadth of vocabulary of their English as a first language peers (Lovett, M. et al., 20008), as well as the syntactic awareness (meaningful grammatical structures) of English. This impeded their ability to draw meaning from a text. Consequently, ELL students required directly taught vocabulary in a meaningful context using a variety of sheltered English teaching strategies such as the use of cognates (e.g., fortunate/afortunado; coincidence/coincidencia) and direct instruction of polysemous words (words with multiple meanings) (Calderon, 2007).

Teachers also needed to be very intentional in the words they selected to teach, choosing largely from Tier 2 words (important, useful words characteristic of mature language of which students already understood the concept) but also incorporating Tier 1 words (basic words, idioms, and connecting words) and Tier 3 (content area specific or technical words). Vocabulary was to be taught before, during, and after reading using such sheltered English teaching strategies as visuals, modeling, collaborative activities, and graphic organizers. Tier 3 vocabulary words, then, also must be specifically taught in the content areas such as Science and Math for ELL students to fully comprehend the concepts presented in related text (Calderon, 2007).

In addition to word knowledge, ELLs had to develop the ability to read with appropriate volume, tone, emphasis, phrasing (often referred to as prosody), and other elements of oral expression (Miller, Justin & Schwanenflugel, Paula J., 2008). To develop prosody, teachers modeled oral reading and provided partner oral reading practice. Rasinski explained that students were better able to actively interpret and construct meaning from the text when they had these skills of prosody. Well-developed prosody increased a student's reading fluency, which, as mentioned earlier, strongly correlated with the student's ability to comprehend the text (Calderon, 2007).

Successful reading comprehension for ELLs involved a myriad of factors. Background knowledge was key to understanding text. Hansen and Pearson maintain that students must have been able to connect their present knowledge with the topic of the text they were currently reading (as cited in Calderon, 2007), to successfully comprehend it. For ELLs, using text relevant to their culture and life experience was helpful when possible (August & Shanahan, 2006). When this was not the case, teachers needed to help ELL students make the connections they could by explicitly teaching them how to do this with such strategies as a K-W-L chart, which elicited from the students what they knew, wanted to know, and, following the reading, had learned from the text. Explicitly teaching students the written format and structure of a text such as the purpose of headings, subheadings, summaries, and captions or the elements of a specific writing genre such as poetry, expository, or narrative text further enabled the students to successfully draw meaning from a text (Calderon, 2007).

Like their first language English speaking peers, ELLs needed to develop the ability to reflect on and analyze text for successful comprehension. ELLs' text-level skills such as reading comprehension were usually well below that of their English speaking peers (August & Shanahan, 2006). With ELL students, Brown and Day (1983) stated that it was best to break the text into manageable parts or provide a summary or simplified version of the text first then use that text

to teach students effective meta-cognitive strategies, such as asking themselves clarifying questions about words and text as they read or identifying the important ideas and supporting details in a text to summarize the text. Again, with ELL students, the teacher provided explicit instruction in how to use meta-cognitive strategies with modeling, graphic organizers, collaborative group work, and other sheltered English approaches, which also largely constituted best teaching practices for all students. Clearly, explicit instruction in reading comprehension skills and meta-cognitive strategies represented another key component of an effective reading program for ELLs as well as their English speaking peers (Calderon, 2007).

Reading Instruction Considerations for Learning Disabled Students

Learning disabled students were identified in two ways. They were those students who demonstrated a significant discrepancy between their cognitive ability and academic achievement as measured by their performance on intelligence tests and academic achievement tests, the original criteria for identifying learning disabled students. They were also students who made limited if any progress in reading in spite of receiving significant instructional interventions, which represented a more recent criteria for identifying a learning disabled student (Aaron, Malatesha, Gooden, & Bentum, 2008). Learning disabled students, and specifically, reading disabled students, were those students

who were clearly intelligent, capable students but not performing up to their ability even with specific instruction in foundational reading skills such as phonology, fluency, and reading comprehension. These students confused and reversed letters and words when reading words in text and in isolation and had difficulty spelling. They were often referred to as dyslexic. According to King (2008), “Dys means ‘problems’ and ‘lexia’ means 'words', so dyslexia means problems with the words you speak, the words you hear, and the words you see” (p. 18). There was considerable variability in the degree to which students demonstrated a reading disability, from mild to severe. Reading and other learning disabilities were attributed to a number of factors including cognitive, psychological, and sensory disabilities that made processing printed text in a meaningful way difficult (Johnstone, Thurlow, Thompson, & Clapper, 2008).

Effective instruction for learning disabled students addressed all the primary reading components recommended for all students earlier in the National Reading Panel Report (NPR) including phonemic awareness and phonological processing (the ability to translate spoken language into written language), fluency, and comprehension. However, the recommended method of instruction for dyslexic students or students with significant reading difficulties included behavioral strategies, and cognitive and direct instruction. For example, studies showed that learning disabled students benefited from explicit phonemic and

phonics-based instruction in small groups of three to six students using such direct instruction programs as Reading Mastery and Read Well (Kamps & Greenwood, 2005). Moreover, effective reading instructional programs for learning disabled students included multi-modalities, such as visual, auditory, tactile, and kinesthetic (Johnstone, et al., 2008). For example, teachers presented flashcards with color-coded word parts to focus students on certain letter combinations and sounds or had students spell words out loud while writing them in their palms. Such instruction involved utilizing multi-modalities and direct, explicit instruction related to specific reading skill components (Aaron, et al., 2008).

Another recommendation for reading disabled students was explicit strategy instruction. According to Nelson and Manset-Williamson, learning disabled students "do not naturally own, access, and apply as many strategies as typically achieving students" (Two feasible hypothesis section, paragraph 12). Students needed to be specifically taught reading strategies in order to decode and comprehend what they read. A study which involved reading disabled students in grades four through eight indicated that those students explicitly taught reading comprehension strategies had better reading comprehension scores at post test than another group with less explicit instruction. Those who received explicit comprehension strategy instruction were also better able to self-regulate their use

of the reading strategies to read more effectively (Nelson & Manset-Williamson, 2006).

O'Conner, White, and Swanson (2007) stated that fluency was one of the most difficult skills to remediate for students with reading disabilities. Furthermore, how much a student read was considered one of the most significant factors effecting reading fluency. Good readers were exposed to two to ten times the number of printed words as poor readers. As noted earlier, increased reading vocabulary and fluency would improve comprehension as well. As a result of a study conducted with reading disabled students, students who practiced repeated reading of a text or continuous reading through a text increased their reading rate and improved their word identification skills and reading comprehension. Consequently, reading fluency practice represented another significant component of an effective reading instructional program for learning disabled students (O'Conner, White, & Swanson, 2007).

Summary

The review of selected literature presented in Chapter 2 supported the following research themes:

1. According to the National Reading Panel report of 2,000, all students learning to read benefited most from an instructional program which

addressed the five specific skills of phonics, phonemic awareness, reading fluency, vocabulary, and reading comprehension.

2. For ELLs, the student's oral language development, especially vocabulary, and the student's background knowledge were also considered important factors in developing the student's reading skills according to the National Literacy Panel on Language Minority Children and Youth (NLPLMCY).
3. For students who demonstrated a reading disability or dyslexia, the foundational reading skills noted above needed to be explicitly taught in a small group of three to six students utilizing a direct instruction, multi-sensory approach and regular, repeated or continuous reading of connected text.

CHAPTER 3

Method and Treatment of Data

Introduction

The teaching of reading represented a multi-faceted process which addressed many interrelated skills including phonemic awareness, decoding, syllabication, comprehension, and fluency. Reading fluency as it relates to reading comprehension was the focus of this study. A fluent reader was one who read aloud with speed, accuracy and expression, which was usually measured by a one-minute timing of an unfamiliar text. To read with comprehension, the student was able to read a text with understanding, which could range from the ability to remember facts and sequence events to the ability to make inferences and draw conclusions from a text. Research indicated a strong correlation between reading fluency and reading comprehension (Reis, Eckert, Mc Coach, Jacobs, and Coyne, 2008), which had implications both for reading instruction and assessment.

With regard to assessment, reading fluency scores have been used as one measure to predict reading comprehension (Reis et al., 2008). It was reasonable to conclude that if a student did not have to focus on decoding the words in a text, he could give more thought to the meaning of the words and the text as a whole (Reis, et al., 2008). But could we this same conclusion be drawn for all students including English Language Learners (ELL) and Learning Disabled (LD)

students? Was their ability to read a text fluently, especially at the middle school level, as highly correlated with their ability to read with comprehension?

At Washington Middle School, many ELLs have demonstrated the ability to read fluently, even at grade level, but have had real difficulty understanding what they read. They were able to successfully decode words because of their phonological awareness, as some studies indicated (Lindsey, Manis, and Bailey, 2003), but their syntactic awareness and vocabulary were not developed to the level of their EFL (English as a First Language) peers. These, too, are considered key factors affecting reading comprehension (Lovett, et al., 2008). The purpose of this correlational research study was to determine the extent to which a relationship existed between oral reading fluency and reading comprehension for ELLs at WMS as measured by the QRI-II (Qualitative Reading Inventory - II).

Methodology

A correlational design was used to determine the relationship between reading fluency and reading comprehension with middle school ELLs, including those with a learning disability. The Pearson r measure of correlation was used for data analysis. This measure of correlation is appropriate when both variables are expressed as continuous data producing a coefficient between –1.00 and +1.00 (Gay, Mills, & Airasian, 2006).

Participants

Thirty ELLs in the 6th, 7th, and 8th grades who scored at a Level 3 on the WLPT-II (Washington Language Proficiency Test), including students with a learning disability (LD) and a current IEP (Individual Education Program), were selected for the study. Of these 30 ELLs, 16 were female and 14 were male. According to OSPI (Office of the Superintendent of Public Instruction, 2007), these students continued to be eligible for transitional bilingual instruction based on their scores on the WLPT-II. Their oral language skills allowed them to receive all academic instruction in English, but they were not yet proficient in reading and writing English.

A convenience sample of ten 6th grade ELLs was selected from a class in which students were performing below grade level and using a reading intervention curriculum at about the 3rd – 4th grade reading level. A random sample of ten 7th grade ELLs was selected from a class of students performing below grade level and using a reading intervention curriculum at about the 4th – 5th grade reading level. Ten 8th grade ELLs were randomly selected from a class of students performing below grade level and using a reading intervention curriculum at about the 6th – 7th grade reading level. The participants all attended Washington Middle School (WMS) in Yakima, Washington.

According to OSPI, 85% of the students at WMS were Hispanic, 36% of which were identified as transition bilingual ELL students. Of the approximately 735 students attending WMS, 43.4% were migrant and 91.8% were on free or reduced lunch. Consequently, Washington was a school in which most of the students spoke Spanish as their first language and came from low-income homes. Washington was in its fourth year of annual yearly progress because of WASL (Washington Assessment of Student Learning) scores, which fell below the state and national average. However, with the ongoing development and implementation of Washington's School Improvement Plan, students were making steady academic progress as reflected by data indicating their entry skill level and significant measurable gains to date.

One Special Education teacher individually administered, scored, and compiled the test data. Data results were shared with the WMS literacy specialist and WMS Special Education supervisor.

Instruments

The Qualitative Reading Inventory-II (QRI-II), an individually administered informal reading inventory, was used to assess students' oral reading fluency and reading comprehension on narrative passages given at their word recognition instructional level in context. The inventory was developed by Lauren Leslie of Marquette University and JoAnne Caldwell of Cardinal Stritch

College for the purpose of assessing a student's reading proficiency with regard to several factors including oral fluency, oral and silent reading comprehension, narrative and expository text, and background knowledge. Test results could be used to estimate a student's reading level as well as identify reading skills needing instructional interventions for primary, intermediate, and secondary students through junior high.

Although the QRI-II was not a norm-referenced or standardized instrument, it was extensively piloted to obtain measures of reliability and validity. The pilot sample included 213 children from kindergarten through 8th grade who attended two inner city private schools and one suburban public school. Thirty-eight percent of these children were minority children, primarily African-American, and most of the students in the sample were of low-average reading ability. The researchers conducted a multivariate analysis of variance with readability as the with-in subjects factor and total comprehension, retelling, and reading rate as the dependent measures. Oral reading accuracy and oral reading acceptable accuracy were also dependent measures analyzed through the 6th grade. According to Lauren and Caldwell (1995), students scored significantly higher on lower level passages indicating the graded passages increased in difficulty both in readability and comprehension as students moved from a lower level to a higher level passage.

Design

A correlational design with the Pearson r measurement was used to determine if there was a significant relationship between reading fluency and reading comprehension with middle school, Level 3 ELLs as measured by the WLPT-II including students with a learning disability.

Procedure

The procedures involved in the present study evolved in several stages:

1. In August, 2008, the researcher met with and received support for the study from the WMS Special Education department supervisor and principal at WMS.
2. During September, 2008, the researcher selected the Qualitative Reading Inventory-II (QRI-II) as the assessment instrument at the recommendation of the literacy specialist from ESD 105.
3. In October, 2008, the researcher met with a 6^{th}, 7^{th}, and 8^{th} general education language arts teacher from each grade level and the ELL teacher responsible for administering the WLPT-II to select students for the study.
4. In November, 2008, using the highlighted list of Level 3 ELLs, the researcher took a convenience sample of 10 students from a language arts block at the $6^{th\ grade}$ level (as there were the only

available students in that block) and a random sample of the 7th and 8th grade level ELLs from their respective classes.

5. In November and December, 2008, and January, 2009, the researcher tested students individually using the word list subtest to identify a starting point of the QRI-II. The students were given a narrative passage to read aloud at their instructional word recognition level in context while being timed then asked oral questions about the text when they finished the passage.
6. In January, 2009, the researcher discussed the results with the literacy specialist from ESD 105 (R. Lewis, personal communication, January 15, 2009).
7. In January, 2009, the researcher collected and recorded both the oral reading fluency and reading comprehension scores at each student's word recognition instructional level in context for each student in the sample on a class record sheet. The researcher compiled and analyzed the data using the Pearson r measure to determine the extent to which a relationship existed between oral reading fluency and reading comprehension for ELLs as measured by the QRI-II at their instructional level for word recognition in context.

8. The researcher reported and interpreted the results and stated conclusions drawn from those results to complete the study in February, 2009.

Treatment of the Data

The scores from the ORI-II were analyzed to determine if there was a correlation between reading fluency and reading comprehension for ELLs and ELL learning disabled students using the Pearson r measure of correlation. Using the Windows STATPAK statistical software program and the reference tables of the text, Educational Research: Competencies for Analysis and Application (Gay, et al., 2006), the researcher found no statistically significant relationship between the ELLs' oral reading fluency and their reading comprehension as measured by the QRI-II in November /December, 2008, and January, 2009. The following formula was used to determine statistical significance for the Pearson r measure of correlation.

$$r = \frac{\Sigma XY - \frac{(\Sigma X)(\Sigma Y)}{N}}{\sqrt{\left[\Sigma X2 - \frac{(\Sigma X)^2}{N}\right]\left[\Sigma Y2 - \frac{(\Sigma Y)^2}{N}\right]}}$$

Summary

The purpose of this correlational research study was to determine the extent to which a relationship existed between oral reading fluency and reading

comprehension for ELLs at WMS as measured by the QRI-II (Qualitative Reading Inventory - II). As cited earlier in the review of selected literature, there was a strong correlation between these two variables for readers in general, especially in the primary grades, but was this relationship equally as strong for ELLs? In the present study, 30 ELL middle school students including ELL learning disabled students participating in a reading intervention general education class were selected to participate. Participants were each tested individually using the Qualitative Reading Inventory-II by the researcher and student scores were analyzed to determine a relationship between oral reading fluency and reading comprehension using the Pearson r measurement. Determining the correlation between reading fluency and reading comprehension for ELL middle school students could have significant implications for future assessment and instructional programs.

CHAPTER 4

Analysis of the Data

Introduction

The present research study sought to determine the extent to which a relationship existed between oral reading fluency and reading comprehension for ELLs at WMS as measured by the QRI-II given in November and December, 2008, and January, 2009, to 6th, 7th, and 8th grade ELLs who scored at a Level 3 on the Spring, 2008 WLPT-II.

Description of the Environment

The study was conducted at WMS with a convenience sample of ten 6th grade ELLS and a random sample of 10 7th grade and 10 8th grade ELLs who scored at a Level 3 on the WLPT-II in the spring of 2008. All of these students were receiving reading instruction in English only using Highpoint, a reading intervention program with sheltered English accommodations for students reading two or more years below grade level. Five of these students were also identified as Learning Disabled (LD) students and receiving small group reading instruction.

Hypothesis

A significant relationship did not exist between oral reading fluency and reading comprehension for ELLs as measured by the oral reading fluency measure and reading comprehension measure of the QRI-II.

Null Hypothesis

There was a significant relationship between oral reading fluency and reading comprehension for ELLs as measured by the QRI-II for $p \leq$ at .05, .01, and .001 levels.

Results of the Study

In Tables 1, 2, and 3, student oral reading fluency scores representing total words read orally in context per minute at that student's word recognition in context instructional level (90-97%), have been presented. The reading comprehension score represented the percent of correct answers a student gave to oral comprehension questions following the student's oral reading of the graded passage given that student. In Table 1, 6th grade participants' instructional level ranged from grades 3 to 5; oral fluency scores ranged from 70 – 160 words per minute (wpm), and reading comprehension scores ranged from 13% to 88%. Data contained in Table 2 indicated 7th grade instructional levels from grades 1 to 5, oral fluency scores from 90 – 149 wpm, and reading comprehension scores from 13% to 80%. Table 3 indicated 8th grade instructional levels ranged from grades 2 to 6. Oral fluency for 8th graders ranged from 73 – 141 wpm and reading comprehension scores ranged from 25% to 100%.

Table 1
Sixth Grade QRI-II Oral Reading Fluency and Reading Comprehension Scores (Nov./Dec., 2008; Jan.2009)

Student	Instructional Level	Oral Reading Fluency	Reading Comprehension
1*	3	87	75%
2	3	118	63%
3	3	118	86%
4	3	87	38%
5	3	160	75%
6	3	129	88%
7	4	122	38%
8	4	88	25%
9	4	79	13%
10	5	93	50%

Note: Those scores identified with an asterisk (*) represented oral reading fluency and reading comprehension scores at that student's independent word recognition level in context (98% accuracy).

Table 2
Seventh Grade QRI-II Oral Reading Fluency and Reading Comprehension Scores (Nov./Dec., 2008; Jan. 2009)

Student	Instructional Level	Oral Reading Fluency	Reading Comprehension
1	1	109	67%
2	1	90	80%
3	3	109	13%
4	4	101	25%
5	4	102	50%
6*	4	118	63%
7*	4	135	63%
8	5	122	25%
9	5	149	38%
10	5	116	38%

Note: Those scores identified with an asterisk (*) represented oral reading fluency and reading comprehension scores at that student's independent word recognition level in context (98% accuracy).

Table 3
Eighth Grade QRI-II Oral Reading Fluency and Reading Comprehension Scores (Nov./Dec., 2008; Jan. 2009)

Student	Instructional Level	Oral Reading Fluency	Reading Comprehension
1	2	73	88%
2	2	105	75%
3	3	122	25%
4	3	85	100%
5*	3	122	63%
6	4	108	50%
7	4	141	38%
8	4	121	63%
9*	5	115	25%
10*	6	123	25%

Note: Those scores identified with an asterisk (*) represented oral reading fluency and reading comprehension scores at that student's independent word recognition level in context (98% accuracy).

In Table 4, student scores were combined and analyzed using the Pearson r measurement on the Windows STATPAK with the correlation coefficient for different levels of significance (Gay et al., 2006, p. 566). The sample of 30 participants with degrees of freedom at 28 produced a Pearson r coefficient correlation value of –0.6.

Table 4
Pearson r Product Moment Correlation

Statistic			Value
Number of items			30
Sum of X			3347.0000
Sum of Y			1565.0000
Sum of Squared X			3857890.00
Sum of Squared Y			99301.00
Mean of “X” Scores			111.57
Mean of “Y” Scores			52.17
Sum of XY			173748.00
Pearson’s r			-0.06
Degrees of Freedom			28
df	0.05	0.01	0.001
28	.3809	.4869	.5974

Finally, Figure 1 has provided a scatter plot of combined baseline data from Tables 1, 2, and 3. The scatter plot diagram further demonstrated no linear relationship between the two variables, oral reading fluency and reading comprehension.

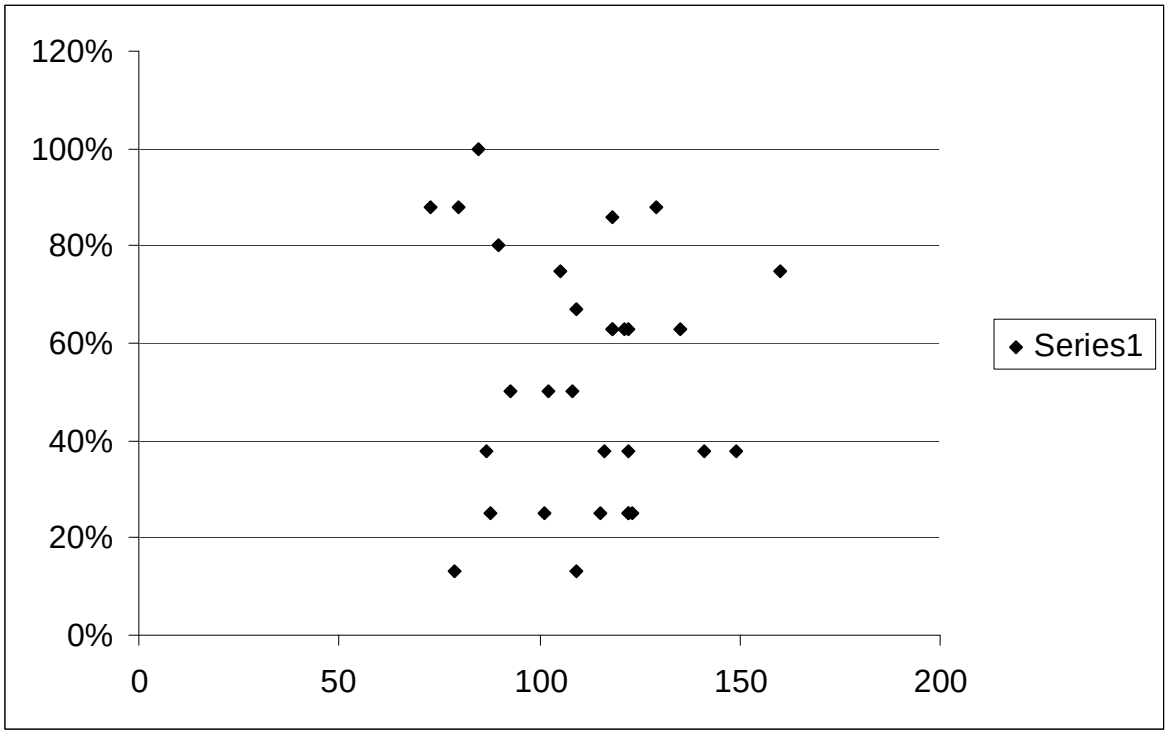

Figure 1

Scatter Plot of Combined Baseline Data from Tables 1, 2, and 3

Findings

The null hypothesis stated there was a significant relationship between oral reading fluency and reading comprehension for ELLs as measured by the QRI-II for $p \leq$ at .05, .01, and .001 levels of significance. The hypotheses stated that there was no significant relationship between oral reading fluency and reading comprehension as measured by the QRI-II for $p \leq$ at .05, .01, and .001 levels. With a Pearson r of -.06, the null hypothesis was rejected at the $p \leq$ at .05, .01, and .001 levels. Conversely, the hypothesis was supported at the $p \leq$ at .05, .01, and .001 levels. The scatter plot diagram (Figure 1) further demonstrated no linear relationship between the two variables, oral reading fluency and reading comprehension. According to the baseline data, many of the ELL students with higher reading fluency scored lower on comprehension than their peers with lower reading fluency rates. Consequently, there was no significant relationship determined between oral reading fluency and reading comprehension for ELLs who scored at a Level 3 on the WLPT-II as measured by the QRI-II at a student's instructional word recognition level in context (90 – 97% accuracy).

Discussion

The researcher conducted the study to determine if a significant relationship existed between oral reading fluency and reading comprehension for ELLs who scored at a Level 3 on the WLPT-II. As discovered from the review

of selected literature, oral reading fluency was found to be a good predictor of reading comprehension for native English speakers (Reis et al., 2008). However, this was not true for ELLs. Many ELLs have proved quite proficient in decoding and word recognition, which has enabled them to orally read accurately and fluently (August, 2006). However, other factors besides oral reading fluency needed to be considered when predicting reading comprehension ability for ELLs, such as the student's background knowledge, vocabulary, and overall oral language development (Lesaux & Geva, 2006).

This appeared true for the group of students at WMS. Although they were not tested at their overall instructional reading level, with an instructional level score in both word recognition in context and reading comprehension, their fluency scores at their instructional level for word recognition in context was not a reliable predictor of their reading comprehension scores at that level. In addition, many of those students whose instructional word recognition level in context was higher and who had higher oral reading fluency scores had lower reading comprehension scores, which might indicate they did not understand the vocabulary or higher level syntax required at those levels. In fact, for most students, their word recognition in context level was at least one if not more grade levels above their instructional level for reading comprehension (70 – 90%), as most scored at the frustration level (< 70%) on these passages.

During the testing, the researcher noted that some students did not know the meaning of some of the vocabulary in the questions, which they indicated by asking a question about a word or stating that they did not know the meaning of a word. They also gave inappropriate oral responses at times demonstrating that they did not clearly understand what the question was asking. This was not unusual, according to a literacy specialist. Many ELLs' reading scores on the WASL in 2007 indicated that they did not clearly understand the written comprehension questions as they often gave answers that did not match the question. Consequently, a listening comprehension test and a cloze format comprehension test might have proved better predictors of reading comprehension for ELLs because they would have provided a measure of oral language development, especially with regard to vocabulary and sentence structure. With regard to instruction, this had significant ramifications. To be more successful in reading comprehension, ELLs needed more explicit instruction and practice accurately interpreting comprehension questions and developing appropriate responses (R. Lewis, personal communication, January 15, 2009).

Summary

The purpose of this correlational research study was to determine the extent to which a relationship existed between oral reading fluency and reading

comprehension for ELLs at WMS who scored at a Level 3 on the WLPT-II as measured by the QRI-II (Qualitative Reading Inventory - II). Results from the study indicated that there was not a significant relationship between the two variables for the small sample of students tested at their instructional word recognition level in context. Thus, the hypothesis, which stated that a significant relationship between these two variables did not exist, was supported at the .05, .01, or .001 levels of significance. The null hypothesis, which stated that there was a significant relationship between oral reading fluency and reading comprehension for ELLs, was rejected at all three levels. In view of these results, no significant relationship between oral reading fluency and reading comprehension was found for ELLs on text given at their instructional word recognition level in context. Therefore, oral reading fluency would not be a good predictor of reading comprehension for ELLs at their word recognition instructional level in context. Measures of oral language development, vocabulary, and background knowledge should also be considered.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

The purpose of this correlational research study was to determine the extent to which a relationship existed between oral reading fluency and reading comprehension for ELLs at WMS as measured by the QRI-II (Qualitative Reading Inventory - II).

Summary

For this study, the researcher first conducted a review of literature regarding key elements of effective reading instruction for English speaking students, ELLs, and learnng disabled students. Developing oral reading fluency represented one of these key factors. Most English speaking students who were able to read a text accurately and fluently also demonstrated good comprehension of the text (Reis et al., 2008). However, ELLs who were able to decode words and read a text orally with fluency often demonstrated difficulty with comprehending the text (Lesaux & Geva, 2006). This was seemingly true for many ELLs at WMS. Oral reading fluency was being used as one predictor of overall reading proficiency, including reading comprehension, for all students, but was this appropriate for ELLs? Consequently, the purpose of this correlational study was to determine if a relationship existed between oral reading fluency and

reading comprehension for ELLs. The results of the study might have significant ramifications for reading assessment and instruction for ELLs.

After a review of selected literature, the researcher conducted a correlational study involving a convenience sample of ten ELL sixth graders, and a random sample of 10 seventh and 10 eighth graders at WMS who scored at a Level 3 on the WLPT-II in the spring of 2008. The researcher individually administered the QRI-II to obtain an oral reading fluency score and a reading comprehension score at each student's instructional word identification level in context. The data was then analyzed using the Pearson r measure of correlation and certain conclusions and recommendations were made.

Conclusions

Based upon major research themes presented in Chapter 2 and from major findings produced from the analysis of data in Chapter 4, the following conclusions were reached:

1. All students learning to read benefited most from an instructional program which addressed the five specific skills of phonics, phonemic awareness, reading fluency, vocabulary, and reading comprehension, according to the National Reading Panel report of 2000.

2. For ELLs, the student's background knowledge and oral language development, including vocabulary, were also considered important factors in developing the student's reading skills, which findings from the study further supported as many ELLs who were able to read a text orally demonstrated difficulty understanding and appropriately answering some of the comprehension questions about that text. (Calderon, 2007).
3. For students who demonstrated a reading disability, the foundational reading skills noted above should be explicitly taught in a small group of three to six students using a direct instruction, multi-sensory approach with the opportunity for regular repeated or continuous reading of connected text.
4. An analysis of data indicated no significant relationship existed between oral reading fluency at an ELL's word recognition instructional level in context and reading comprehension as measured by the QRI-II administered individually by the researcher to a sample of 30 middle school ELLs at WMS in November and December, 2008, and January, 2009.

Recommendations

From the conclusions cited above, the following recommendations have been suggested:

1. To benefit all students learning to read, an instructional program should include specific skill instruction in phonics, phonemic awareness, reading fluency, vocabulary, and reading comprehension.
2. To develop English Language Learners' reading skills, educators should consider such important factors as the students' oral language development, vocabulary, and background knowledge.
3. To identify and provide appropriate reading instruction for ELLs with a learning disability, careful consideration must be given to the student's language development, response to interventions, and a more direct form of reading instructional program focusing on specific skills in a small group setting with repeated and multi-sensory practice.
4. To better predict an ELL's reading comprehension level, assessments that indicate a student's level of oral language development and background knowledge, such as a listening comprehension test or a cloze format comprehension test, might be better indicators. Oral reading fluency with a measure of the student's oral reading prosody could also be an indicator of a student's reading comprehension level.

5. School and district personnel seeking information related to the correlation between oral reading fluency and reading comprehension for ELLs may wish to utilize the information provided in this study or conduct another study more suited for their unique needs.

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