ORAL READING FLUENCY AND THE SIMPLE VIEW OF READING FOR ENGLISH LANGUAGE LEARNERS

by

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A DISSERTATION

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DISSERTATION ABSTRACT

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Title: Oral Reading Fluency and the Simple View of Reading for English Language Learners

The Simple View of Reading is a well-known lens for understanding the skills that contribute to proficient reading. The Simple View explains reading comprehension as the product of decoding and listening comprehension. There is a gap in the literature regarding the applicability of the Simple View for Spanish-speaking English language learners, and also whether oral reading fluency would be valuable to include in the model as an intermediate variable. In the present study two groups of third grade students, one group comprised of students classified as English language learners and a comparison group of non-ELL students, were assessed on several reading skills. Data were collected on listening comprehension, decoding, oral reading fluency, and reading comprehension. Data were analyzed using generalized least squares estimation for path analysis and partial invariance testing. Findings support the inclusion of oral reading fluency in the Simple View model, highlight the significance of listening comprehension, and suggest the Simple View model applies equally well across ELL and non-ELL groups. Limitations and future directions are addressed.

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CHAPTER I

INTRODUCTION

Many students in the United States struggle to obtain proficiency in reading skills in elementary school, and reading difficulties continue to persist into later grades. As of 2015, only 39% of fourth grade students scored Proficient or above on the National Assessment of Educational Progress (NAEP) reading tests, and only 36% of eighth grade students scored at or above Proficient in reading (United States [U.S.] Department of Education, 2015). For English language learners (ELLs), scores are consistently lower. Only 8% of fourth grade ELL students scored Proficient or above and only 4% of eighth grade ELL students scored at or above Proficient on the NAEP reading tests (U.S. Department of Education, 2015). Struggling readers gain skills at a slower rate, which places them on a trajectory that diverges from their higher-skilled peers (Good, Simmons, & Smith, 1998), which highlights the importance of a preventive or early intervention approach to decrease the achievement gap between ELLs and their non-ELL, English-speaking peers. The slower accumulation of reading skills has a cumulative effect over time. Although gaps in achievement may be present in early elementary school, over time, the gap widens as students with proficient literacy skills read more and build subsequent reading skills. A widening gap over time could be even more problematic if the initial skill gaps are large. Students with less developed reading skills read less, more slowly (Stanovich, 1986). Thus, the time to intervene is in elementary school, before achievement gaps become more pronounced and more difficult to close. Gains during elementary school can influence learning and keep the achievement gap from transforming into a large disparity (Alexander, Entwisle, & Olson, 2007; Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996).

Critical Components of Reading

Further research is needed regarding what reduces the gap between successful and unsuccessful readers. The National Reading Panel (NRP, 2000) identified factors that contribute to proficient reading. These five critical components of reading include phonemic awareness, phonics, fluency, vocabulary, and comprehension. According to the report of the National Literacy Panel on Language-Minority Children and Youth, these same components are crucial skills for ELLs to develop (August & Shanahan, 2006). Addressing the skill of reading comprehension, which can be defined as "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language," is particularly important because students who are able to gain meaning from connected text are given access to more text-based knowledge and educational opportunities (Shanahan et al., 2010, p. 5). Reading comprehension skills are critical to obtaining meaning from text in a variety of academic subjects. ELLs tend to display lower reading comprehension performance than their non-ELL peers, which compounds the importance of understanding the development of proficient reading for this population (Lesaux, Koda, Siegel, & Shanahan, 2006). Although much research exists regarding what factors contribute to successful reading, these factors must be explored in the context of models of reading.

Development of Reading

Reading skills develop over time and become increasingly complex. Students first need to be able to decode, the ability to use letter-sound correspondence to identify a written word, in order to read text fluently. Reading fluency, defined as reading accurately and at an adequate rate, predicts the complex skill of reading comprehension (NRP, 2000). According to LaBerge and Samuels's (1974) Automaticity Theory (Figure 1), students with the ability to decode words quickly and automatically have more attentional resources to devote to comprehending text than those students who struggle with decoding. For these students, decoding does not require conscious attention. For unskilled readers, decoding text requires more attentional resources that cannot be otherwise devoted to comprehending written text. The ability to process spoken language for meaning is also included in this model. However, instead of a direct relation between oral language variables and reading comprehension, LaBerge and Samuels seem to support an indirect relation through the visual code. In this model, oral language variables have become automatic early in the process of reading development, prior to becoming proficient at decoding. For non-ELL students, this model and assumptions provide a powerful heuristic for understanding reading development. However, for ELLs the Theory of Automaticity alone may not adequately describe reading development. There appears to be no significant difference between non-ELL and ELL students on word-level decoding performance (Lesaux et al., 2006). Thus, according to Automaticity Theory, one may expect non-ELLs and ELLs to have similar levels of reading comprehension. Given the persistently lower levels of reading comprehension for ELLs, the automaticity model does not appear to capture the nuances of the variables influencing reading comprehension. The assumption within the LaBerge & Samuels (1974) model that automaticity with oral language has become an automatic skill prior to decoding proficiency may be problematic for ELLs and needs further examination. Oral language proficiency may be both predictive and essential for modeling reading comprehension with ELLs (Lesaux & Geva, 2006).

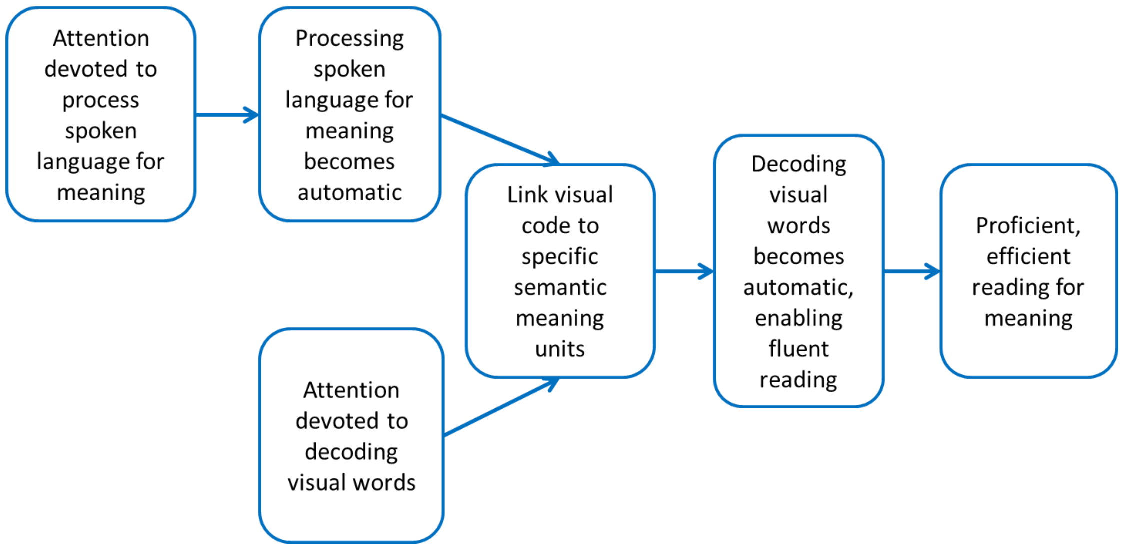

Figure 1. An interpretation of the Automaticity Theory of reading by LaBerge and Samuels (1974).

The Simple View Theory of reading is another lens to understand the subskills that together produce proficient reading (Gough & Tunmer, 1986). The Simple View maintains that reading comprehension is the direct product of decoding and listening comprehension (Figure 2). Decoding skills enable students to decipher the alphabetic code, such that they can read isolated words quickly and efficiently. Decoding has been documented in different ways, either as an isolated measure of accuracy with the alphabetic principle (Crosson & Lesaux, 2010), or more broadly defined to include both accuracy and efficiency (word-level fluency; Proctor, Carlo, August, & Snow, 2005). Listening comprehension is an oral language skill; it can be described as when provided with spoken words, students can interpret words, sentences, and meaning. Gough and Tunmer (1986) assert that both decoding and listening comprehension, or being able to both recognize and understand words, are necessary skills that interact in a multiplicative way to enable the ability to comprehend written text. The interaction between decoding and listening comprehension is multiplicative in that if either skill were reduced to zero, the product (i.e., reading comprehension) would also be zero. Reading comprehension is constrained by which of the two factors, either decoding or listening comprehension, is less developed.

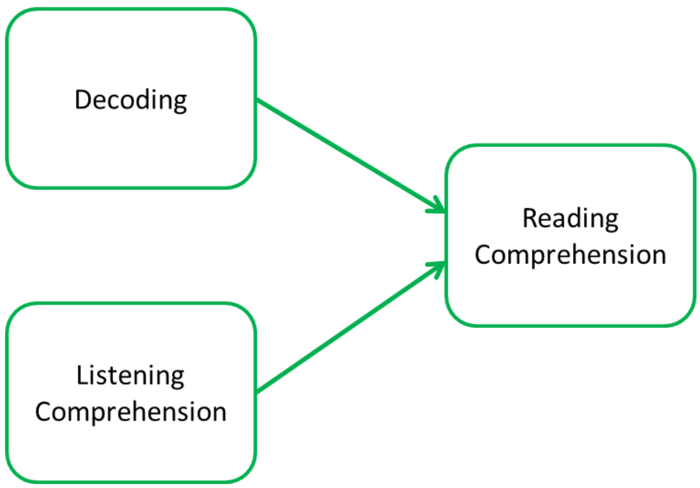

Figure 2. An interpretation of the Simple View of Reading from Gough and Tunmer (1986).

The Simple View lens has framed substantial reading research. For example, Kim (2015) examined the relation between listening comprehension and word reading (decoding) on reading comprehension in kindergarten Korean children living in Korea and found significant relations. The results indicated that listening comprehension and decoding were important mediators in the relation of language and cognitive skills to reading comprehension. In a longitudinal study from grades one through six among Dutch children, researchers found significant relations between decoding, listening comprehension, and reading comprehension (Verhoeven & Van Leeuwe, 2008). As children developed better decoding skills, their reading comprehension scores were more constrained by listening comprehension. Another study examined oral language and decoding skills in early elementary school and found that these two skills formed two distinct clusters and independently predicted reading comprehension in second grade (Kendeou, van den Broek, White, & Lynch, 2009). Limited prior research has also provided some support for the Simple View with ELLs (Mancilla-Martinez, Kieffer, Biancarosa, Christodoulou, & Snow, 2011; Proctor et al., 2005). However, research on the relation between listening comprehension and reading comprehension in English for ELLs is rare and has produced mixed results (Jeon & Yamashita, 2014), and so more research examining this relation within the Simple View for ELLs is warranted.

Gaps in the Simple View of Reading

Although the Simple View of Reading is elegant in its uncomplicated explanation of the complex skill of reading, this model does not include intermediate subskills of reading that are along the continuum between listening comprehension, decoding, and reading comprehension. Additionally, the Simple View does not take into account automaticity and the allotment of attentional resources. Figure 3 describes which parts of the Theory of Automaticity are captured by the Simple View of Reading.

Including Automaticity through Fluency

Reading fluency can be defined as reading passages of connected text accurately and at an adequate rate (Crosson & Lesaux, 2010; Kim & Wagner, 2015). Frequently, text reading fluency is measured as oral reading fluency (ORF), in which students read connected text aloud for a set duration of time to produce a score of correct words read in a minute. Reading fluency is considered a bridge, or mediator, between decoding and reading comprehension (Kim & Wagner, 2015; Pikulski & Chard, 2005). Reading fluency's emphasis on accurate and efficient reading encapsulates the automaticity component that the Simple View of Reading lacks. To read fluently, students must be able to decode words without devoting a lot of time and attentional resources.

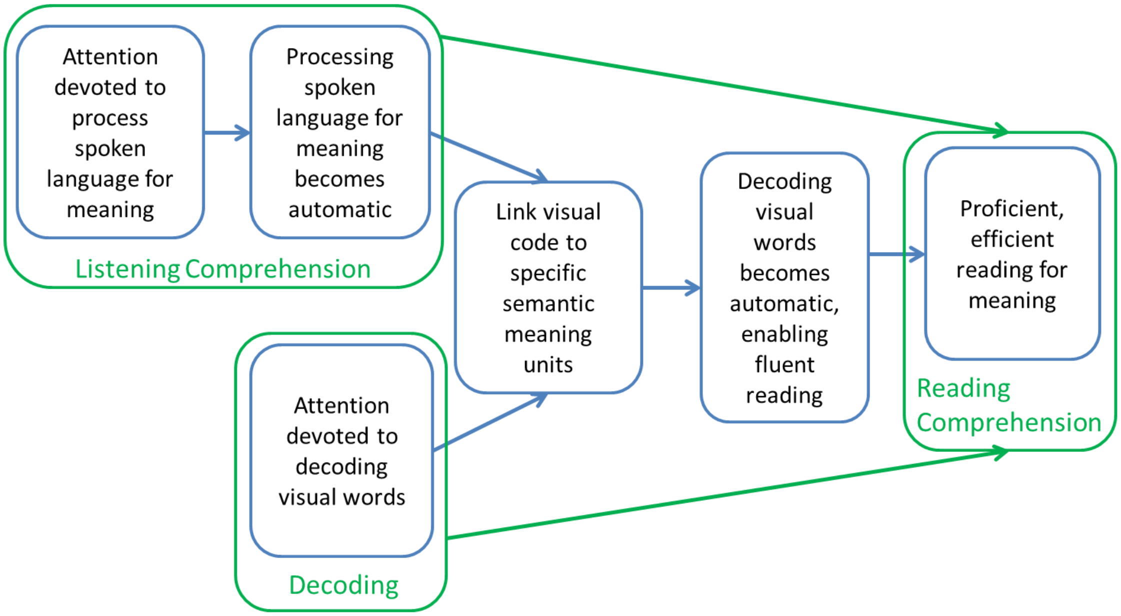

Figure 3. An interpretation of the Theory of Automaticity (LaBerge & Samuels, 1974) in blue and components of the Simple View of Reading (Gough & Tunmer, 1986) in green.

The importance of reading fluency as a predictor of reading comprehension is documented among non-ELLs, but very few studies have been conducted with ELLs (Crosson & Lesaux, 2010). Although the literature is limited, studies indicate that for ELLs, the relation between reading fluency of connected text and reading comprehension is as strong as for non-ELL students (Crosson & Lesaux, 2010; Riedel, 2007; Wiley & Deno, 2005). However, for ELLs, the relation between skilled proficient fluency and skilled reading comprehension also depends upon the presence of proficient oral language skills (Crosson & Lesaux, 2010). While the Simple View of Reading includes an efficiency component to decoding (Hoover & Gough, 1990), the current study differentiates between word-level decoding reading passages of connected text accurately and efficiently and labels the former simply decoding and the latter oral reading fluency. With this differentiation in mind, the Simple View of Reading lacks mention of ORF. Including ORF in a revised model of the Simple View of reading could capture the presence of automaticity in reading and provide an intermediate step not present in the Simple View (Figure 4).

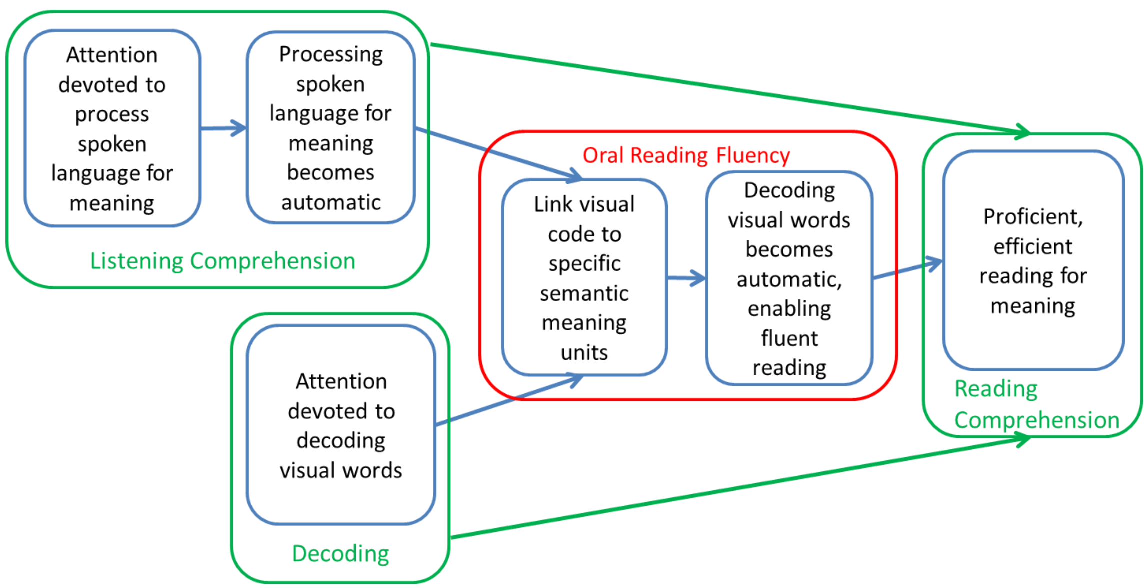

Figure 4. An interpretation of the Theory of Automaticity and the Simple View of Reading with the inclusion of oral reading fluency (Kim & Wagner, 2015; Pikulski & Chard, 2005).

Expanding Oral Language Variables

The Simple View of Reading includes listening comprehension, an oral language variable. However, listening comprehension is a complex oral language variable that impacts reading comprehension. Studies have varied regarding whether vocabulary is included with listening comprehension as a broad oral language variable or separated into a distinct construct. Pikulski and Chard (2005) and Ehri (1998) categorized listening comprehension and vocabulary under a broader language skills variable. Kendeou and colleagues (2009) used listening comprehension, television comprehension, and vocabulary to form a latent oral language variable that predicted reading comprehension. However, when both listening comprehension and vocabulary are aggregated into a single predictor variable, it can be difficult to parcel out the unique contributions of each component to reading comprehension. Separating broad oral language variables into important components enables the study of differential effects. As a distinct construct, vocabulary predicts reading comprehension and is a necessary reading skill (Yovanoff, Duesbery, Alonzo, & Tindal, 2005; Verhoeven & Van Leewe, 2008) for students reading in their first language. However, some doubt remains if vocabulary and listening comprehension are indeed separate. Kim (2015) examined the relation of language skills, including vocabulary; listening comprehension; and word reading on reading comprehension. For the participants in this study, comprised of Korean students learning to read in Korean, listening comprehension and word reading completely mediated the direct relation between vocabulary and reading comprehension. Current research is unclear regarding the ability to separate listening comprehension and vocabulary into distinct constructs. Further study examining the influence of listening comprehension and vocabulary, separately, on reading comprehension would be helpful, especially for ELLs, to shed further light on the possibility of isolating these oral language factors and the possible unique contributions of each construct. Given the scope of the current study, only listening comprehension was used as a measure of oral language skills.

Population Differences

Little research has been conducted using ELLs and including a non-ELL comparison group (Lesaux et al., 2006). Although learning to read involves the same skills for students regardless of language status, the lack of research comparing both groups prevents definitive statements regarding the development of reading for ELLs. In some cases, the presence and strength of relations between reading variables may be the same for both ELLs and their non-ELL peers (Babayigit, 2015). However, it is also known that ELLs consistently lag behind their non-ELL peers in reading comprehension despite comparable word-level decoding (Lesaux & Geva, 2006; Lesaux et al., 2006). More research is needed to provide understanding of reading comprehension and its predictive factors for ELLs compared to non-ELL students. Thus, the model also needs to consider language status (ELL or non-ELL) as a moderating variable.

A Merged Model

To examine the development of reading comprehension more comprehensively for ELLs, the model (Figure 4) can be merged and streamlined. In this study, a merged model was considered (Figure 5) that examines the direct relation listening comprehension on reading comprehension and the indirect relation of listening comprehension on reading comprehension via oral reading fluency. Language status was examined as a moderating variable for the direct relations of oral reading fluency and listening comprehension on reading comprehension. This merged model is based upon the Simple View of Reading, but addresses gaps in this model by including oral reading fluency, as a way of incorporating automaticity.

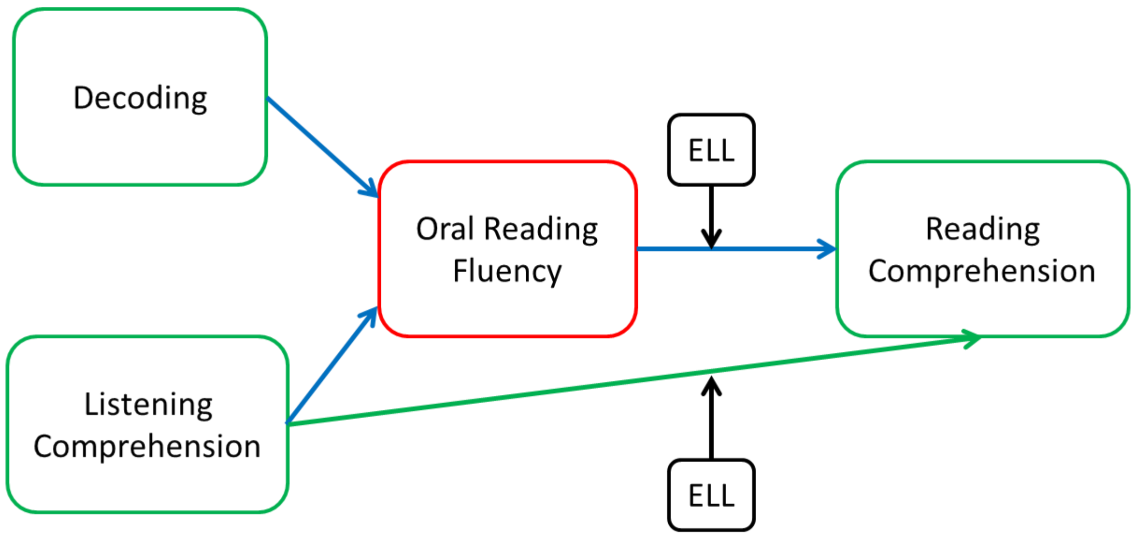

Figure 5. An adapted version of the Simple View of Reading (green), including components of the Theory of Automaticity (blue) and the inclusion of oral reading fluency (red).

This model provides a few advantages, including the illustration of possible direct relations, indirect relations, and moderation effects. First, this model would help provide additional information to understand the development of reading for ELLs. More research is needed to explore the impact of language factors, such as listening comprehension, on oral reading fluency and reading comprehension for this population. In 2006, the National Literacy Panel on Language Minority Children and Youth synthesized available research on second-language literacy (August & Shanahan), in which they called for more research on this population of students. An update to this report in 2010 (August & Shanahan) found that since the first literature search in 2002, only 10 additional experimental or quasi-experimental studies measured reading comprehension outcomes for ELLs. More research is needed, especially studies that include a non-ELL comparison group.

Second, this model allows the exploration of a possible comprehension component to oral reading fluency. The research results regarding the contribution of listening comprehension on oral reading fluency are varied. There is a known relation between the ability to decode words accurately and efficiently and fluency (NRP, 2000). In fact, some findings indicate that after accounting for word reading automaticity, oral language skill is not uniquely related to oral reading fluency for ELLs (Kim, 2012). However, other studies have obtained different results. According to Kim (2012), “oral reading fluency is more than word reading automaticity and is built on oral language comprehension as well” (p.691). For language-majority students, some articles suggest that listening comprehension can predict oral reading fluency (Kim, Wagner, & Foster, 2011; Kim, Park, & Wagner, 2014), particularly for more skilled readers for whom decoding is not a constraint. This leads to the third advantage of a merged model.

The third advantage to using the model in Figure 5 is to explore a developmental model of reading skills. In studies of language-majority students, efficient word-level decoding better predicted reading comprehension for younger and less skilled readers than older and more skilled readers. However, for older and more skilled readers, listening comprehension became a better predictor (Kim et al., 2011; Kim et al., 2014). One reason may be due to constrained and unconstrained variables. To read fluently, students must be able to efficiently decode connected text. As students build more skills, decoding automaticity may have an upper limit, beyond which greater skills add little to benefit oral reading fluency and reading comprehension. Oral language variables, such as listening comprehension, may be less constrained. Better oral language skills may increasingly provide access to more and more complicated texts and improve reading comprehension before reaching a very high upper threshold. Thus, beyond the beginning stages of reading, when decoding may constrain reading performance, language comprehension may be more constraining to make reading progress (Pikulski & Chard, 2005; Ehri, 1998). Kim (2012) did not find that oral language skill was uniquely related to oral reading fluency after accounting for word reading automaticity for ELLs. However, for these students decoding automaticity and oral language skills in English were so low that floor effects were possible. A model of reading that incorporates language skills, such as listening comprehension, for ELLs merits further evaluation.

Significance

While the Simple View of Reading includes both listening comprehension and decoding as critical components of reading and having direct relations with reading comprehension, the Theory of Automaticity assumes a more indirect effect of language variables in explaining reading comprehension performance. While the five critical components of reading identified by the National Reading Panel (2000) are important for all readers, for ELLs instruction in these components alone could be insufficient to develop proficient reading skills in English. Oral language skills in English are also necessary, but this is infrequently targeted in instruction (August & Shanahan, 2006). If listening comprehension predicts reading comprehension or if listening comprehension indirectly predicts reading comprehension through oral reading fluency, it could indicate that more attention needs to be directed to developing listening comprehension in English for ELLs as part of their reading instruction. The results could provide a basis and rationale for further examination of the value of listening comprehension and development of interventions targeting this skill area. ELL students continually lag far beyond their non-ELL peers in reading performance throughout the school years, which has important consequences for ELLs in their ability to access academic content in other areas and is an issue of equity. This clarifies important constructs in reading to improve knowledge of how reading development and the relationships between various subskills are modeled, which may have the potential to improve how we target reading instruction.

Purpose

Although there is research supporting the validity of the Simple View of Reading, the effect of language status as a moderating variable and the role of oral reading fluency within this model for ELLs are lacking. This study examines decoding, listening comprehension, oral reading fluency, and reading comprehension among ELLs living in the United States in the third grade, after many students have received decoding instruction for three years. Results from third grade students may provide a higher likelihood that listening comprehension would be a significant predictor, as decoding skills would have been taught in earlier grades. Well-developed decoding skills would be less of a constraining factor in the "decoding X listening comprehension = reading comprehension" equation describing the Simple View of Reading. Thus, the relationship between listening comprehension and reading comprehension could be less masked than it would if decoding skills were minimal or in early development.

The purpose of this study is to examine the relation between several reading subskills and clarify the extent to which listening comprehension contributes to oral reading fluency and reading comprehension. This study examines whether oral reading fluency can function as an intermediate skill in the Simple View model, positioned between earlier reading skills and reading comprehension for ELLs. Additionally, this study explores the extent to which language status (ELL or non-ELL) moderates the relation of oral reading fluency and listening comprehension on reading comprehension.

CHAPTER II

REVIEW OF THE LITERATURE

The Simple View of Reading maintains that reading comprehension is the product of decoding and listening comprehension (Gough & Tunmer, 1986). In this model, the relation between decoding and listening comprehension is multiplicative instead of additive because without the presence of either skill, the product (reading comprehension) is zero. Thus, reading comprehension may be constrained by the lower skill. Over time, various studies have addressed the Simple View of Reading and its adaptations, including the presence of oral reading fluency and vocabulary. The inclusion of oral reading fluency in the Simple View reflects the incorporation of Automaticity Theory (Kim et al., 2011; LaBerge & Samuels, 1974). While decoding is imperative to understanding text, developing automaticity with decoding lessens its required attentional resources, which can then be allotted toward constructing meaning from the text. Automaticity with the code is reflected through fluent reading. According to this view, reading skills follow a developmental trajectory, with the development of decoding skills earlier facilitating the later ability to understand what one has read. While decoding has a history of association with oral reading fluency and reading comprehension (Kendeou et al., 2009; Pikulski & Chard, 2005), the presence of listening comprehension and other oral language variables may also be related to oral reading fluency and reading comprehension, particularly once decoding skills are established (Kim et al., 2011). However, while the Simple View of Reading has been established for non-ELL children, little research examining the Simple View of Reading and its variants with Spanish-speaking ELLs (Mancilla-Martinez et al., 2011).

Evidence for the Simple View and Non-ELL Students

A 2011 study (Kim et al.) examined the association between oral reading fluency, silent reading fluency, reading comprehension, and listening comprehension among first grade, English-speaking students. One of the research questions within this study examined the Simple View of Reading, asking to what extent oral reading fluency, silent reading fluency, and reading comprehension were predicted by decoding fluency and listening comprehension. Listening comprehension was measured by the Woodcock Johnson III Oral Comprehension subtest (Woodcock, McGrew, & Mather, 2001) and two experimental passages that required students to answer open-ended questions based on the passages. Kim used listening comprehension to represent oral language skills that are important for reading comprehension, including vocabulary. The researchers divided the sample into thirds based on their word reading skills, labeling the top third the skilled reader group and the bottom third the average reader group. Structural equation modeling was used to find if decoding and listening comprehension predicted oral reading fluency, silent reading fluency, and reading comprehension.

The results indicated that listening comprehension was significantly related to oral reading fluency beyond decoding ability for skilled readers. However, for average readers, this relation was not present. Listening comprehension was significantly related to reading comprehension for both average and skilled readers. For average readers, decoding was significantly related to reading comprehension, but not for skilled readers. For average readers, decoding ability seems to be a better predictor of oral reading fluency and reading comprehension, while for skilled readers, listening comprehension may better predict oral reading fluency and reading comprehension. Kim's interpretation of these findings is that, decoding is a constraining factor for average readers, but for more highly skilled students with more proficient decoding skills, listening comprehension predicts reading performance.

While the Kim et al. (2011) study provided important insight into the development of reading and provided support for the Simple View of Reading, there were several limitations. This study examined reading performance among first graders, a time when students are still learning to decode text. Future research using older samples could examine if the increased importance of listening comprehension for skilled versus average first grade readers would hold true for students later in the reading developmental trajectory. Additionally, this study was conducted using a non-ELL English-speaking sample. From this study, it is unclear how these results would generalize to students who are learning English as a second language.

A 2014 study by Kim, Park, and Wagner examined the relations among word reading fluency, listening comprehension, and text reading fluency to reading comprehension using a sample of Korean kindergarteners and first graders. The purpose of the study was to find if text reading fluency (oral reading fluency) served as a bridge from listening comprehension and word reading fluency (decoding) to reading comprehension. In this model, text reading fluency was thought to combine the two components of the Simple View of Reading (i.e., decoding and listening comprehension), which explained its unique relation to reading comprehension. Students were given a variety of assessments modified for use in Korean, and data were analyzed using structural equation modeling.

The results supported a developmental view of reading. The authors found that the relation between listening comprehension and reading comprehension was .55 for kindergarteners and .91 for first graders. However, the relation between word reading fluency and text reading fluency to reading comprehension was stronger for kindergarteners (r = .90) than for first graders (r = .43). Another research question addressed whether text reading fluency was uniquely related to reading comprehension over and above word reading fluency and listening comprehension. Again, different results were found across the two grades. In kindergarten, text reading fluency completely mediated the relation between word reading fluency and reading comprehension; there was not a significant direct path from word reading fluency to reading comprehension. In first grade, neither word nor text reading fluency were uniquely related to reading comprehension, but listening comprehension was strongly related to reading comprehension. The results describe a shift in the developmental progression of reading skills. It seems that word reading fluency is more important earlier, when students are still limited by developing decoding skills. However, once students are able to decode more proficiently, listening comprehension becomes far more important in explaining reading comprehension. Like Kim et al. (2011), this relation was found once students reached a certain level of proficiency in reading words. A developmental view of reading, in which oral reading fluency acts as a mediator differently (i.e., full versus partial) and at different times (i.e., kindergarten versus first grade) for decoding and listening comprehension to reading comprehension, is important for understanding how various reading skills change and interact. This finding also highlights the importance of including listening comprehension in a model of reading and provides support to the relation between oral reading fluency and listening comprehension, which Kim et al. (2011) claims had only previously been hypothesized.

Although the Kim et al. (2014) study provided valuable insight into the development of reading, it is not without its limitations. The sample was composed entirely of Korean children in their native language, which may have limited generalizability for ELLs in the United States. These Korean children are learning to read a language in which they are presumably already fluent and that is spoken across home and school contexts. For Spanish-speaking ELLs learning to read in English, students have the added difficulty of learning to read a language in which they are not fluent. Additionally, the assessments had to be altered, both with regard to language and cultural relevance, for use with young Korean students. Thus, the assessments are not directly comparable to their English versions and generalization to even non-ELL English-speaking students may not be appropriate.

The Simple View and English Language Learners

While support exists for the Simple View of Reading for early elementary, non-ELL students, the generalization of a developmental, Simple View of Reading must also be examined for students who are learning English as a second language. Mancilla-Martinez and colleagues (2011) assessed students from fifth through seventh grade on listening comprehension, decoding, and reading comprehension. Listening comprehension was measured using the Group Reading Assessment and Diagnostic Evaluation (Williams, 2001). The authors found that initial reading comprehension in fifth grade was predicted by both initial decoding and initial listening comprehension. However, neither decoding nor listening comprehension predicted reading growth or rate of acceleration over time. Additionally, reading comprehension growth seemed to slow in the middle school years. The authors note the danger of having low reading comprehension skills when entering middle school and advocate for intervention before middle school when growth slows. Importantly, the authors found that decoding, not listening comprehension, was more important in explaining reading comprehension performance for ELLs. This finding seems to contrast with some studies on non-ELL students that find as children age and gain more decoding skills, listening comprehension becomes more important in explaining reading comprehension. This study highlights the need to further investigate the application of the Simple View of Reading to ELLs, and it emphasizes the need to examine factors contributing to reading difficulties in elementary school, prior to the slowing of reading comprehension growth among ELLS.

In another study, Kim (2012) examined the relation between oral reading fluency, silent reading fluency, decoding, and oral language skills in English, and literacy skills in the first language (Spanish) for a sample of Spanish-speaking ELLs in first grade. The author postulated that oral language proficiency may be more important for ELLs than Non-ELL students due to prior studies finding that reading comprehension for ELLs still lags behind Non-ELL students with comparable decoding abilities. Within Kim's (2012) study, one research question in this study addressed the relation between oral language skill and oral reading fluency in English accounting for decoding ability for both skilled and less skilled readers. Another question involved the relation between oral language skills and reading comprehension.

Oral language skills were measured using the Woodcock Johnson III Oral Comprehension subtest (listening comprehension; Woodcock et al., 2001), the Peabody

Picture Vocabulary Test-4 (Dunn & Dunn, 2007), and the Wechsler Abbreviated Scale of Intelligence vocabulary subtest (Wechsler, 1999). Scores from these three subtests together composed the latent oral language skill variable. The results indicated that the relation between oral language skill and oral reading fluency was not significant after accounting for decoding for the total sample. However, oral language skill was uniquely related to reading comprehension. The finding that oral language is related to reading comprehension provides support for the Simple View of Reading. However, the lack of a relation between oral language and oral reading fluency is inconsistent with prior literature conducted with Non-ELL students (Kim et al., 2011). Although this finding may seem contradictory, it may still be explained within a developmental perspective of the Simple View. The author hypothesized that perhaps decoding performance in English was low enough to be a constraining factor, such that students could not devote attention to comprehension processes when reading passages of connected text. Another reason could be oral language skills in English were too low to be of use. The author noted that students in this sample had decoding scores comparable to the normative sample, but that oral language skills were still below average. Given the author's findings were somewhat contradictory to the contribution of listening comprehension within the Simple View of Reading for ELLs, the Simple View as a model of reading for ELLs merits further examination. This study used a sample of first grade students, and perhaps with an older sample decoding would be less of a constraining factor. Replication of this study with students who have completed core decoding instruction could result in listening comprehension having a stronger influence on oral reading fluency. Additionally, this study combined vocabulary and listening comprehension assessments into a latent oral language variable.

Another study also supported the association between oral language and reading comprehension for Spanish-speaking ELLs (Lesaux, Crosson, Kieffer, & Pierce, 2010). These students were in fourth grade and followed until fifth grade. In this study, literacy variables in both English and Spanish were assessed. For these students, oral language skills in English were significantly related to English reading comprehension. The oral language variable included both vocabulary and listening comprehension. However, word-level reading skills were not associated with reading comprehension. These findings seem to contradict the results from older students in the Mancilla-Martinez et al. (2011) study. Further study is warranted to determine the impact of oral language variables and decoding on reading comprehension.

Current Study

Prior research examining the impact of listening comprehension on other reading skills for ELLs is limited. Past studies addressed that included oral language variables were conducted on younger ELLs in kindergarten and first grade (Kim, 2012) or middle school students (Mancilla-Martinez et al., 2011) and did not include a comparison Non-ELL group. Given that prior studies have had mixed findings applying the Simple View of Reading to ELLs, further examination is merited. The current study examines the relations between decoding, listening comprehension, oral reading fluency, and reading comprehension performance. Students were assessed on these variables after receiving three years of decoding instruction (K-2nd) and at a crucial time when students are expected to begin "reading to learn," or when they must be able to read to access the curriculum in the classroom. A sample of ELLs and Non-ELL students were used to make comparisons between groups.

The current study addresses the following research questions:

1. Does listening comprehension predict oral reading fluency?
2. Does English leaner status moderate the direct relation between oral reading fluency and reading comprehension?
3. Does English learner status moderate the direct relation between listening comprehension and reading comprehension?

CHAPTER III

METHODS

Participants and Setting

Participants were third grade students currently enrolled in three public school districts in Oregon. Total participants included 34 Spanish-speaking ELLs and 74 non-ELLs. Out of this total, 19 ELLs and 43 non-ELLs were from the first district, 11 ELLs and 31 non-ELLs were from the second district, and 4 ELLs were from the third district. The total sample included 66 female students and 42 male students. Out of the ELL group, 21 students were female and 13 were male. The non-ELL group included 45 female students and 29 male students.

Procedures

Recruitment. Participants were recruited through a multi-step process. First, approval was obtained from the University of Oregon Office for the Protection of Human Subjects. Then, the investigator completed school district research applications for the first and second school districts. After obtaining approval from these two districts, school principals were contacted via email to request permission to contact third-grade and ELL teachers. Next, the investigator emailed teachers to request permission to recruit their students for the present study and to send home parent permission forms (Appendix A).

Teachers varied in their preferences for recruiting students, including whether they would permit recruitment of their entire class or only the ELLs in their class. Some general education teachers elected to send home parent permission forms to their entire class and requested the investigator to leave the forms at the school. Other teachers permitted the investigator to talk to students and explain the study and procedure for returning the forms. ELL teachers who responded to the recruitment email helped to facilitate sending home parent permission forms with all the Spanish-speaking ELLs at their respective schools. In most cases, students were recruited only once. However, one teacher requested more parent permission forms to recruit a second time. The investigator also obtained permission from four teachers to recruit ELL students a second time by speaking with each student and providing another parent permission form. An incentive was offered to encourage students to return parent permission forms. Across whole classes, if 80% of the class returned the parent permission form, then the entire class would be allowed to select a toy prize from a prize box provided by the investigator. When only a selection of students was recruited (i.e., only ELL students from a class or school), then each student who returned a form could choose a prize.

The third district was a rural school district and did not have a research application or review process. Teachers of ELL students were contacted by a school psychologist in this district, and she arranged teacher permission to recruit ELL students and to send home parent permission forms. Another rural school district was contacted (fourth district), and two parent permission forms were sent, but no signed forms were received.

Parent permission forms were available in both English and Spanish. The form provided details about the study including possible risks and benefits, requested permission for their child to be a participant in the study, and asked approval to request language classification status from the district. A research assistant was assigned to be a Spanish-speaking contact for families with questions about the study, and her phone number was provided on the form. Parents were able to return a signed informed consent agreement either by mailing a provided pre-stamped envelope or by having their child return the form to his or her teacher. After parental informed consent was obtained, the investigator contacted teachers to arrange preferred times to test students as to minimize impact on instructional times. Students provided assent (Appendix B) prior to participating in the study.

Assessment Training and Reliability. Study measures were administered by the investigator and seven data collectors. The data collectors were current school psychology graduate students at the University of Oregon. Six of the data collectors had previously completed an educational assessment course. The investigator provided two- to three-hour trainings in small-group and individual sessions to teach data collectors to administer the study assessments. The training was developed by the investigator, but was based from assessment manuals, materials, and for three assessments incorporated publisher-developed training slides. The training provided both instruction and practice administering each measure. Data collectors then scheduled individual sessions with the investigator to demonstrate ability to administer assessments reliably and show adherence to administration rules and guidelines. During these sessions, each data collector was asked to administer and score each assessment with the investigator acting as the student. The investigator developed administration accuracy rubrics for each study measure and developed answer scripts/keys. Data collectors successfully demonstrated at least 90% administration accuracy (average = 98.39%, range = 91.67% - 100%) and scoring reliability (average = 99.12%, range = 91.67% - 100%) during these sessions with the investigator prior to testing study participants.

The data collectors (including the investigator) administered assessments to student participants in their schools. The first five participants in each group (i.e., five ELL, five non-ELL), were partner-scored by two examiners and inter-scorer reliability was measured. Additionally, partner-scoring was required for each data collector's first student tested. Ninety percent reliability was required for partner-scoring in the field. Altogether, 16 student participants were partner-scored. The field inter-scorer reliability criterion was 90%. Examiners were able to meet this criterion and did not drop below 90% for any of these students (average = 98.57%, range = 90.90% - 100%). For the remaining participants, one examiner was present to administer and score assessments in-person, and all raw scores for each measure and participant were counted again by the investigator prior to data entry.

Measures

Data were obtained by conducting assessments of reading subskills that correspond to variables in the study. The order of assessment administration was the same across participants. Independent variables (IVs) in this study were decoding and listening comprehension. The dependent variables (DV) were reading comprehension and oral reading fluency performance. Language status (ELL or non-ELL) was examined as a moderating variable.

The Test of Word Reading Efficiency- Second Edition (TOWRE-2; Torgesen, Wagner, & Rashotte, 2012) was used as the measure of decoding and includes two subtests. In the Sight Word Efficiency subtest, students decoded a list of printed words for 45 seconds. In the Phonetic Decoding Efficiency subtest, students decoded a list of non-words for 45 seconds. The TOWRE-2 contains four alternate forms. For the current study, all participants were given the same form (Form A). For Sight Word Efficiency, average alternate form (immediate) reliability is .91, average same form (delayed) reliability is .91, and average alternate form (delayed) reliability is .87. For Phonemic Decoding Efficiency, average alternate form (immediate) reliability is .92, average same form (delayed) reliability is .90, and average alternate form (delayed) reliability is .87. The average correlation between Sight Word Efficiency and other tests of word identification accuracy was .90, and the average correlation between Phonemic Decoding Efficiency and other measures of phonemic decoding was .89 (Torgesen et al., 2012).

The Word Attack subtest from the Woodcock Johnson Tests of Achievement Fourth Edition (WJ IV; Schrank, Mather, & McGrew, 2014a) measures basic reading skills and phoneme-grapheme knowledge, and was used as an additional measure of decoding in this study. In this measure, students were asked to read phonically regular nonwords aloud in an untimed format. Word Attack has a test reliability coefficient of .92 for nine-year-old students and .94 for students eight years of age (McGrew, LaForte, & Schrank, 2014). Word Attack is included in the WJ Basic Reading Skills Cluster, which correlates with the Kaufman Test of Educational Achievement- Second Edition (KTEA-II; Kaufman & Kaufman, 2004) Reading Composite Measure (.93). Word Attack results were combined with results from the TOWRE-2 to form a decoding composite score for each student. The standard scores for the TOWRE-2 Sight Word Efficiency subtest, Phonetic Decoding Efficiency subtest, and the WJ IV Word Attack subtest were averaged to create the decoding composite score. In the current study, the Word Attack subtest was significantly correlated with both the Phonemic Decoding Efficiency (.64) and Sight Word Efficiency (.60) subtests from the TOWRE-2, $p < .01$.

The Woodcock Johnson Oral Comprehension subtest was used as the measure of listening comprehension (Schrank, Mather, & McGrew, 2014b) and has a test reliability coefficient of .82 for students who are nine years old, and .78 for students who are eight years old (McGrew et al., 2014). The Oral Comprehension subtest is included in the Listening Comprehension cluster of the Oral Language Battery. The Listening Comprehension cluster of the WJIV Oral Language battery was correlated with the oral language composite of the KTEA-II (.74) in a sample of students ranging in age from eight through twelve years. In this subtest, students listened to an oral passage and identified a missing key word that made sense in the context of the passage. This cloze measure was chosen for the present study because it appears to be a valid and reliable measure of listening comprehension.

The Woodcock Johnson Passage Comprehension subtest (Schrank, Mather, & McGrew, 2014a) was used as the measure of reading comprehension and has a test reliability coefficient of .89 for students nine years of age and .93 for students who are eight years of age (McGrew et al., 2014). In this assessment, students were asked to provide a missing word that makes sense in the context of a passage of text. Passage Comprehension is included in the WJ IV Reading Comprehension Cluster, which correlates with the KTEA-II Reading Composite (.85).

Aimsweb Reading Curriculum-Based Measurement (R-CBM; Shinn & Shinn, 2002) probes were used as the measure of oral reading fluency. In this measure, students were asked to read grade-level passages for one minute while the examiner scored correct words read and errors per minute. After the student read aloud for one minute, the examiner instructed the student to stop reading. In accordance with benchmark procedures, students were asked to read three R-CBM probes, and the median score was used as the student's score. For third grade, the R-CBM alternate-form reliability across three forms is 0.94. Test-retest reliability across four months is 0.94 from fall to winter and 0.95 from winter to spring in the third grade (Daniel, 2010). R-CBM scores correlate with the North Carolina End of Grade Reading Test across R-CBM administrations in the fall (.69), winter (.71), and spring (.72) in third grade (Pearson Education, 2012).

Measurement Procedures

Student participants were recruited by contacting local districts in Oregon. After districts documented their support, third grade teachers were contacted for participation and to distribute parent consent packets. Forms were available in English and Spanish and included stamped envelopes to return the consent form. Parents were able to either mail the consent form to the University of Oregon or return the packet with their child to be collected by the teacher and returned to the investigator. Teachers were contacted to identify times to obtain student assent and conduct reading assessments.

Trained data collectors administered assessments. Most assessments were completed during one session per student, lasting approximately 30 to 45 minutes. For the very few students whose assessments were not completed in one session, a second testing session was held within a week. After all data were collected, results from assessment protocols were entered into SPSS and analyzed.

Data Management and Analyses

Data were entered in SPSS and analyzed using path analysis using Analysis of Moment Structures software (AMOS; Arbuckle, 2012) according to the proposed models (Figure 6) to examine significant predictors of dependent variables and to find the extent of moderating relations. Decoding and listening comprehension were exogenous variables. Oral reading fluency and reading comprehension were endogenous variables. Covariances between exogenous variables were examined. All variables are manifest variables.

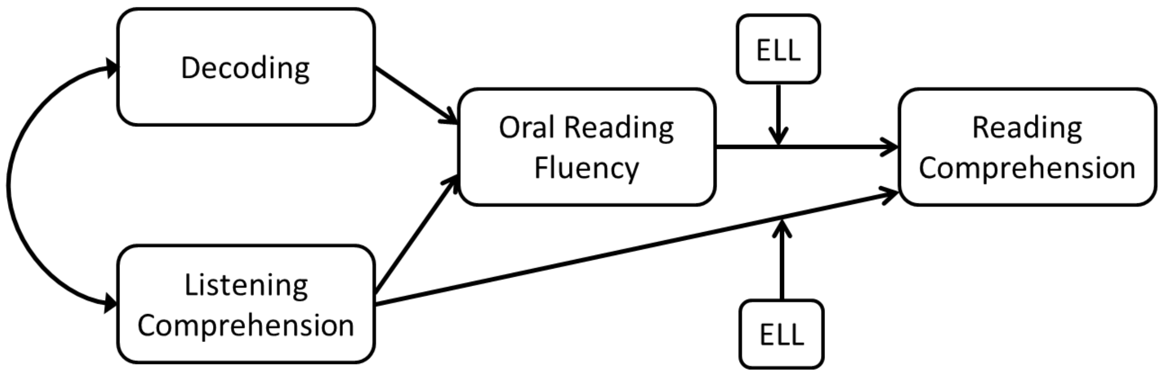

Figure 6. Path model of relations between decoding, listening comprehension, oral reading fluency, and reading comprehension. Language status (ELL) was examined as a moderator variable.

Participants scoring at or above the first percentile on the WJ IV Oral Language and Word Attack subtests were included in the final analysis. With these criteria, four ELL students were excluded from the analysis, leaving a total of 30 ELLs and 74 non-ELLs as the analysis sample. There were no missing data. Multivariate normality was interpreted according to Mardia's (1985) test threshold. Skew and kurtosis were reported. The Bollen-Stine bootstrap procedure (Kim & Millsap, 2014) was used to examine if multivariate non-normality was a concern.

Due to low sample size, the generalized least squares estimation method was used. Reported results included several goodness of fit indices, including chi square, Comparative Fit Index, Root Mean Square Error of Approximation, and Standardized Root Mean Square Residual. Interpretation of significance tests for parameters in the model were reported. This provided the ability to answer Research Question One, regarding the relation between listening comprehension and oral reading fluency. Research Questions Two and Three explored the potential moderating effect of language status on two paths in the model: the relations from oral reading fluency to reading comprehension and listening comprehension on reading comprehension. Partial invariance testing was conducted to examine language status as a moderator and answer these research questions.

CHAPTER IV

RESULTS

The purpose of this study was to examine the relation between decoding, listening comprehension, oral reading fluency, and reading comprehension performance for a sample of ELLs and non-ELLs.

Path Analysis

The initial sample included 108 students, 34 of which were Spanish-speaking ELLs, and 74 were non-ELLs. Students scoring below the first percentile on either WJ IV Word Attack or Oral Comprehension subtests were excluded from the analysis to minimize floor effects. The final analysis sample included 30 ELLs and 74 non-ELLs. See Table 1 for descriptive statistics, Table 2 for whole-group correlations, and Table 3 for correlations by group (ELL and non-ELL). Although the standard deviations of oral reading fluency was larger for the non-ELLs than for the ELLs, the difference was not significant, $F(1, 102) = 2.25$, $p = .137$.

Skew among individual variables ranges in absolute value from 0.09 to 1.57 and are less than 3.00, above which would indicate severe skew. Kurtosis among individual variables ranges in absolute value from 0.24 to 8.91. Values above 8.00 indicate severe kurtosis. Multivariate normality was 29.21 (critical ratio 21.49), indicating the data are not multivariate normal (Mardia, 1985). As data were not found to be multivariate normal, the Bollen-Stine bootstrap procedure was used with 1000 replications to determine if there was adequate model fit (Kim & Millsap, 2014). The Bollen-Stine procedure indicated that the final model fit better in 951 bootstraps and worse in 49 bootstrap samples, indicating that the model is correct and multivariate non-normality was not a concern. Data were analyzed using generalized least squares estimation using Analysis of Moment Structures software (AMOS: Arbuckle, 2012). The model converged properly, and the minimum was achieved.

Table 1

Descriptive Statistics for Study Variables by ELL status

Group	Statistic	Decoding	Listening Comprehension	Oral Reading Fluency	Reading Comprehension
Total	*M*	99.30	100.08	103.53	94.20
	SD	10.99	15.20	38.89	14.87
	Kurtosis	0.31	-0.42	0.86	9.41
	Skewness	-0.56	-0.12	0.09	-1.59
ELLs	*M*	96.71	86.00	92.37	87.27
	SD	10.77	12.09	31.86	9.65
	Kurtosis	0.51	-0.50	0.39	2.89
	Skewness	-0.80	0.25	-0.35	-1.21
Non-ELLs	*M*	100.36	105.78	108.05	97.01
	SD	10.97	12.39	40.73	15.72
	Kurtosis	0.29	-0.22	0.83	12.01
	Skewness	-0.52	0.01	0.04	-2.12

Note. $N = 104$. ELL group $n = 30$, non-ELL group $n = 74$.

Table 2

Correlations Among Study Variables for Entire Sample

	Decoding	Listening Comprehension	Oral Reading Fluency	Reading Comprehension
Decoding	1			
Listening Comprehension	.39**	1		
Oral Reading Fluency	.83**	.47**	1	
Reading Comprehension	.62**	.56**	.64**	1

Note. $N = 104$.

** $p < .01$.

Table 3

Correlations Among Study Variables by ELL Status

	Decoding	Listening Comprehension	Oral Reading Fluency	Reading Comprehension
Decoding	1	.38*	.87**	.67**
Listening Comprehension	.38**	1	.28	.68**
Oral Reading Fluency	.82**	.52**	1	.58**
Reading Comprehension	.61**	.46**	.63**	1

Note. ELL group correlations ($n = 30$) above the diagonal, non-ELL ($n = 74$) group correlations below the diagonal.

* $p < .05$. ** $p < .01$.

Goodness-of-fit. Several goodness-of-fit indices were used to compare the hypothesized model's fit with the data. Goodness-of-fit indices were chosen to include a global index (chi-square), comparative index (Comparative Fit Index [CFI]), and absolute indices (Root Mean Square Error of Approximation [RMSEA], Standardized Root Mean Square Residual [SRMR]). Fit was evaluated according to guidelines indicating good model fit established by Hu and Bentler (1999), which include values greater than .94 for CFI, less than .08 for SRMR, and less than .06 for RMSEA. A significant *p*Close for the RMSEA would indicate that the model is not close-fitting, Additionally, a chi square value that is significant would indicate a lack of fit between the proposed model and the data. A non-significant chi square value would indicate the model is not significantly different from observed data and therefore, the model has good fit.

Results of the chi-square test were significant indicating a significant difference between the data and the proposed model, $\chi^2(1) = 5.10$, $p = .02$. The CFI was .92, indicating less than a good fit. Similarly, the RMSEA was .20, 90% CI [.06, .39], *p*Close = .04, indicating that the model is probably not a close fit to the data. However, the SRMR was .023 indicating a good fit. Taken together, these goodness-of-fit indices indicate the final model has an acceptable but mediocre fit.

Research question 1: Does listening comprehension predict oral reading fluency? Unstandardized parameter estimates, variances, covariances, standard errors, critical ratios, and *p*-values are described in Table 4.

Table 4

Unstandardized Estimates, Critical Ratios, and Significance Levels for Model in Figure 7

Parameter estimate	Unstandardized coefficient	Standard error	Critical ratio	*p*
Decoding → Oral Reading Fluency	2.79	0.21	13.57	< .001
Listening Comprehension → Oral Reading Fluency	0.42	0.15	2.88	.004
Listening Comprehension → Reading Comprehension	0.32	0.08	4.13	< .001
Oral Reading Fluency → Reading Comprehension	0.18	0.03	6.02	< .001
Covariance Decoding and Listening Comprehension	64.47	17.49	3.69	< .001
Variance Decoding	115.84	16.58	6.99	< .001
Variance Listening Comprehension	228.86	31.89	7.18	< .001
Variance Oral Reading Fluency Residual	401.55	16.58	6.85	< .001
Variance Reading Comprehension Residual	100.63	14.77	6.81	< .001

Note. $N = 104$.

The results indicate that decoding and listening comprehension each significantly predict oral reading fluency, oral reading fluency predicts reading comprehension, and listening comprehension also directly predicts reading comprehension. Additionally, the two exogenous variables, decoding and listening comprehension, were significantly correlated. Standardized estimates, R^2 values for endogenous variables, and the path diagram can be seen in Figure 7. The results indicate that 73 percent of the variance in oral reading fluency can be accounted for by decoding and listening comprehension, and 52 percent of the variance in reading comprehension can be accounted for by the model.

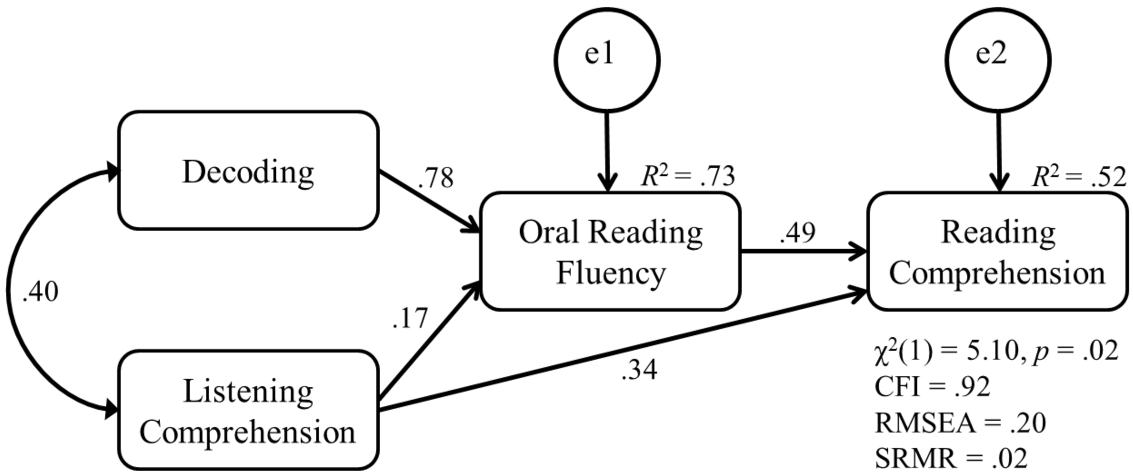

Figure 7. Measurement model including standardized estimates of relations between decoding, listening comprehension, vocabulary, oral reading fluency, and reading comprehension. All paths are significant.

Direct and indirect effects. Overall, listening comprehension explained about 12.25% of the variance of reading comprehension. The direct effect of listening comprehension on reading comprehension explained about 11.56% of the variance, while the indirect effect of listening comprehension on reading comprehension by way of oral reading fluency explained an additional 0.69% of the variance. This indicates that, when explaining the total variance of listening comprehension on reading comprehension, the direct effect accounts for far more of the variance than does the indirect effect of listening comprehension on reading comprehension through oral reading fluency.

Partial Invariance Testing

Partial invariance testing was conducted to determine if ELL status affected the strength of two relationships in the model: (a) the direct relation between oral reading fluency and reading comprehension, and (b) the direct relation between listening comprehension and reading comprehension. Two methods were used to conduct partial invariance testing, both of which involve first fitting an unconstrained model, then fitting a constrained model, and finally reviewing the difference between the models as a test of the constraints. In the first method, each of the two targeted paths (i.e., oral reading fluency to reading comprehension or listening comprehension to reading comprehension) was fixed in two constrained models, which were separately compared to the unconstrained model. In the second method, both targeted paths were fixed within one constrained model that was compared to an unconstrained model. Both methods were performed and described.

First, an unconstrained model was fit, in which all paths in the model were free to vary. The unconstrained model allowed different path coefficients for ELLs and non-ELLs and served as a comparison model. Next, a second, constrained model was fit, that imposed equality constraints on the paths to be examined (oral reading fluency to reading comprehension and/or listening comprehension to reading comprehension), so that ELL and non-ELL groups were forced to have the same coefficients on these two paths. Within this constrained model, the other paths that were not targeted remained free to vary across groups. The constrained model was then compared to the unconstrained model, and differences in chi-square, degrees of freedom, and reduction in CFI were evaluated. A significant chi-square differences between the constrained and unconstrained models would indicate the need for different path coefficients for each group (i.e., ELL and non-ELL) and that the selected path coefficients were not invariant. According to Cheung and Rensvold (2002), the null hypothesis that the paths are invariant should not be rejected unless the reduction in CFI is greater than .01.

Research question 2: Does ELL status moderate the direct relation between oral reading fluency and reading comprehension? First, the direct path from oral reading fluency to reading comprehension was constrained to be equal across groups, leaving the path from listening comprehension to reading comprehension, as well as the other model paths, free to vary. This constrained model (Model 2) was compared to the unconstrained model (Model 1), in which all paths in the model were free to vary. Differences in chi-square, degrees of freedom, and reduction in CFI were evaluated. These values are described in Table 5. The chi square difference test was not significant, and the reduction in CFI was not sufficient to reject the null hypothesis of invariance. As there was not a significant or important difference in fit between the model holding the path constant across groups and the unconstrained model, invariance cannot be rejected. Thus, ELL status does not appear to moderate the direct relation between oral reading fluency and reading comprehension. In the unconstrained model (Model 1), for ELLs the unstandardized path coefficient from oral reading fluency to reading comprehension was 0.13 (standardized coefficient = .44), and for non-ELLs the same unstandardized path coefficient was 0.21 (standardized coefficient = .55). In Model 2, for ELLs the unstandardized path coefficient from oral reading fluency to reading comprehension was 0.17 (standardized coefficient = .53), and for non-ELLs the unstandardized path coefficient from oral reading fluency to reading comprehension was 0.17 (standardized coefficient = .46).

Table 5

Comparison of Unconstrained Model and Model Constraining the Path from Oral Reading Fluency to Reading Comprehension

Model	χ^2	*df*	*p*	*CFI*
1. Unconstrained model (all paths allowed to vary between ELL and non-ELL)	6.31	2	.043	.905
2. Constrained model (path from oral reading fluency to reading comprehension constrained to be equal for ELL and non-ELL)	7.96	3	.047	.891
Difference	1.65	1	.199	.014

Note. *N* = 104. ELL group *n* = 30, non-ELL group *n* = 74.

Research question 3: Does ELL status moderate the direct relation between listening comprehension and reading comprehension? This analysis compared the unconstrained model with a second constrained model (Model 3), in which the direct path from listening comprehension and reading comprehension was constrained to be equal across groups, leaving the path from oral reading fluency to reading comprehension, as well as the other model paths, free to vary between non-ELL and ELL. Differences in chi square, degrees of freedom, and reduction in CFI were evaluated. Values are described in Table 6. The chi square difference test was not significant, and the reduction in the CFI was not sufficient to reject the null hypothesis of invariance. Because there was not a significant or important difference in fit between the model holding the path constant across groups and the unconstrained model, invariance cannot be rejected. Thus, ELL status does not appear to moderate the direct relation between listening comprehension and reading comprehension. In the unconstrained model (Model 1), for ELLs the unstandardized path coefficient from listening comprehension to reading comprehension was 0.45 (standardized coefficient = .58), and for non-ELLs the same unstandardized path coefficient was 0.23 (standardized coefficient = .19). In Model 3, for ELLs the unstandardized path coefficient from listening comprehension to reading comprehension was 0.36 (standardized coefficient = .49), and for non-ELLs the same unstandardized path coefficient was 0.36 (standardized coefficient = .29).

Table 6

Comparison of Unconstrained Model and Model Constraining the Path from Listening Comprehension to Reading Comprehension

Model	χ^2	*df*	*p*	*CFI*
1. Unconstrained model (all paths allowed to vary between ELL and non-ELL)	6.31	2	.043	.905
3. Constrained model (path from listening comprehension to reading comprehension constrained to be equal for ELL and non-ELL)	7.63	3	.054	.898
Difference	1.32	1	.250	.007

Note. N = 104. ELL group n = 30, non-ELL group n = 74.

The last analysis involved the second method of partial invariance testing, in which both targeted paths were fixed within one constrained model that was compared to an unconstrained model. In this constrained model (Model 4), both paths from oral reading fluency to reading comprehension and from listening comprehension to reading comprehension were constrained to be equal across ELL and non-ELL groups. Other paths in this model remained free to vary. Model 4 was the dual constrained model, named because both targeted paths are fixed within the same model. Model 4 was then compared to the unconstrained model (Model 1). Differences in chi square, degrees of freedom, and reduction in CFI were evaluated. Values are described in Table 7. The chi square difference test was again not significant, and the reduction in the CFI was not sufficient to reject the null hypothesis of invariance. Thus, the unconstrained model and dual constrained model were again not significantly different, and ELL status does not appear to moderate the direct relation from oral reading fluency to reading comprehension and from listening comprehension to reading comprehension.

Table 7

Comparison of Unconstrained Model and Dual Constrained Model (Paths from Oral Reading Fluency to Reading Comprehension and from Listening Comprehension to Reading Comprehension Constrained to be Equal)

Model	χ^2	*df*	*p*	*CFI*
1. Unconstrained model (all paths allowed to vary between ELL and non-ELL)	6.31	2	.043	.905
4. Dual Constrained model (paths from oral reading fluency to reading comprehension and listening comprehension to reading comprehension constrained to be equal for ELL and non-ELL)	8.39	4	.078	.903
Difference	2.09	2	.352	.002

Note. $N = 104$. ELL group $n = 30$, non-ELL group $n = 74$.

Invariance in the models indicates that there is not a significant difference between ELLs and non-ELLs for the path from oral reading fluency to reading comprehension and from listening comprehension to reading comprehension. With a difference in CFI less than or equal to .01, results indicate that ELLs and non-ELLs are not different at the individual targeted path level, as well as the level at which both targeted paths are constrained at once.

Conclusion

A path analysis and partial invariance testing were conducted to answer the three research questions. The goodness-of-fit indices indicated that the final model in the path analysis had acceptable but mediocre fit. Results of the path analysis indicated that all paths in the model were significant, including the path from listening comprehension to oral reading fluency. To answer Research Question 1, listening comprehension significantly predicted oral reading fluency in the model. Thus, listening comprehension appears to have a small indirect effect on reading comprehension through oral reading fluency. Next, partial invariance testing was conducted to compare ELL and non-ELL groups. By comparing an unconstrained model to models that constrained targeted paths to be equal across both groups, the moderating effect of ELL status could be examined. Results indicated that the unconstrained model was not significantly different from the constrained models. Therefore, ELL status did not moderate the direct relation between oral reading fluency and reading comprehension (Research Question 2), and ELL status did not moderate the direct relation between listening comprehension and reading comprehension (Research Question 3). Overall, ELL status did not appear to have a moderating effect on these two paths of interest.

CHAPTER V

DISCUSSION

The purpose of this study was to examine the Simple View of Reading with ELLs and non-ELLs. More specifically, this study sought to examine the possibility that oral reading fluency functions as a bridge between more preliminary skills (i.e., decoding and listening comprehension) and advanced reading skills (i.e., reading comprehension). Then, the potential moderating effect of language status on this modified Simple View model was explored. Although the Simple View has support in the research literature, there appear to be fewer studies examining the effect of language status, the impact of listening comprehension, and the role of oral reading fluency in this model for an ELL sample. Within the modeling approach used, listening comprehension and decoding were the two exogenous variables, and the two endogenous variables were oral reading fluency and reading comprehension. Within the study model, oral reading fluency was positioned as an intermediate variable between decoding and listening comprehension, and the more advanced skill of reading comprehension.

Oral Reading Fluency as a Bridge to Reading Comprehension

The Simple View of Reading has served as a framework for reading research. While the simplicity of the Simple View is appealing, the leap from decoding and listening comprehension skills to have the ability to gain meaning from connected text is large. This study examined whether oral reading fluency could potentially function as a necessary bridge from more prerequisite skills (i.e., decoding and listening comprehension) to the more advanced skill of reading comprehension within the Simple View. The results of this study, including significant path coefficients to and from oral reading fluency, support including oral reading fluency in the Simple View as an intermediate skill within the model. The strong links from decoding to oral reading fluency and from oral reading fluency to reading comprehension were expected. Prior research has found that word-reading fluency (i.e., decoding) did not explain any significant unique variance in reading comprehension after accounting for oral reading fluency (Crosson & Lesaux, 2010). This means that oral reading fluency completely explains the relation between decoding and reading comprehension, and so is firmly positioned as an intermediate skill bridging the preliminary skill of decoding to the more advanced skill of reading comprehension.

One intriguing result is the significant relation found between listening comprehension and oral reading fluency. How is listening comprehension related to the skill of reading connected text accurately and at an adequate rate? The results of the present study suggest that oral reading fluency is more than decoding words accurately and efficiently, and includes an element of oral language and listening comprehension (Kim, 2012). This finding is consistent with Automaticity Theory (LaBerge & Samuels, 1974). According to Automaticity Theory, students who can decode words quickly and automatically do not need to devote as much conscious attention toward decoding. Instead, those attentional resources can be allotted toward comprehending text and building meaning. Unskilled readers, who spend a lot of effort and attention decoding text, are still focused on decoding and unable to allocate as much cognitive resources to comprehending text. Processing spoken language for meaning is also included in the LaBerge and Samuels model of Automaticity. They envision automaticity with oral language variables early in the process of reading, prior to becoming a skilled decoder.

Then, when students learn to decode text, they are able to link the visual code to specific semantic meaning units and develop reading fluency and reading comprehension. In this study, the link from listening comprehension to oral reading fluency is significant but is not as strong as that from word-level decoding to oral reading fluency. In fact, listening comprehension has a larger direct effect to reading comprehension than to oral reading fluency. However, oral reading fluency at least partially reflects listening comprehension skill. Interestingly, the correlation between decoding and oral reading fluency was .87 and .82 for ELLs and non-ELLs, respectively. However, the correlation between listening comprehension and oral reading fluency was .28 for ELLs and .52 for non-ELLs. Taking a developmental perspective, listening comprehension could be providing a boost to oral reading fluency for non-ELLs because, for this group, listening comprehension skills are developed enough to significantly relate to oral reading fluency. For ELLs, perhaps listening comprehension is low such that they receive less benefit to oral reading fluency.

The Simple View does not include a separate, intermediate skill that encapsulates automaticity with listening comprehension and decoding. In the present study, oral reading fluency captures this component of automaticity. The study model places oral reading fluency in the center of the model. Listening comprehension and decoding are positioned as predictors of oral reading fluency, and then oral reading fluency is placed as a predictor of reading comprehension. The significant relations between all paths in the study that include oral reading fluency provides evidence that this variable adds an important skill within the study model by bridging the relations between early and advanced literacy skills. By including oral reading fluency in the Simple View, we add an intermediate step that captures the effect of automaticity not only with the visual code, but also to some extent with processing spoken language for meaning, and clarifies how both impact reading comprehension.

Contribution of Listening Comprehension to Reading Comprehension

The results of the current study indicate that listening comprehension is also an important variable in the model. As mentioned above, the ability to process spoken language for meaning and develop automaticity with this skill is included within Automaticity Theory and is a component to developing reading fluency. Within Automaticity Theory, listening comprehension affects reading comprehension in an indirect relation through linking the visual code to specific semantic meaning units. This linkage facilitates the development of automatic, fluent reading, which frees attentional resources to devote to gaining meaning from text. In the Simple View, listening comprehension has a direct impact on reading comprehension. The current study examined both paths and found that, while both were significant, listening comprehension had a stronger direct effect predicting reading comprehension (standardized coefficient = .34) than predicting oral reading fluency (standardized coefficient = .17). Results examining direct, indirect, and total effects of listening comprehension on reading comprehension found that the direct effect from listening comprehension to reading comprehension accounted for most of the total effect of listening comprehension, and that the indirect effect of listening comprehension through oral reading fluency was very small in comparison. In fact, for ELLs, listening comprehension was more strongly correlated with reading comprehension than decoding or oral reading fluency. However, it should be noted that partial invariance testing indicated that the strength of the relation between listening comprehension and reading comprehension was not significantly different for ELLs and non-ELLs. Thus, results are consistent with the Simple View of reading in that listening comprehension strongly and directly predicts reading comprehension, with only a comparatively small indirect effect. This is an important finding because it indicates that listening comprehension skills are important for gaining meaning from text beyond the initial stages of learning to read. Students must be able to break the visual code and read efficiently and accurately to comprehend written, connected text. However, reading comprehension also depends upon the ability to comprehend spoken language to facilitate the interpretation of meaning from the code.

Listening comprehension may become even more important for reading comprehension for students over time as decoding becomes less of a constraint. For example, reading comprehension for students in first grade could be limited predominately due to relatively limited decoding ability. However, in sixth grade, most students would have mastered decoding skills and so listening comprehension may be more of a relevant predictor of differences in reading comprehension. For ELLs, even once these students have comparable decoding skills with their non-ELL peers, they may continue to show deficits in reading comprehension in later grades compared to their non-ELL peers due to their greater difficulty with listening comprehension.

While it was beyond the scope of the current study, other language variables could have also been captured by listening comprehension, such as vocabulary and background knowledge. This study did not examine other oral language variables, and so it is unknown the extent to which these unexamined variables have a direct or indirect effect (mediated by oral reading fluency or listening comprehension) on reading comprehension. Future research could explore these oral language variables in a more complex model to find if they form a cluster of oral language skills along with listening comprehension, or if they are better positioned as independent predictors within the model.

Effects of Language Status on the Model

The effects of language status on the study model were examined to explore if language status moderated the direct relation between oral reading fluency and reading comprehension (Research Question Two), and the direct relation between listening comprehension and reading comprehension (Research Question 3). For both questions, there was no significant evidence that language status moderated the relations. Being an ELL did not significantly change either of these two relations. The results indicate that oral reading fluency and listening comprehension are approximately equally important for ELLs and non-ELLs for predicting reading comprehension. This suggests that the Simple View of Reading works in a similar manner for both ELLs and non-ELLs. However, it should be noted that the sample size for ELLs was small ($n = 30$), and so it is possible that, due to low ELL-sample size, a small effect could have been possible but was undetected.

ELLs tend to have poorer reading comprehension skills than non-ELLs despite comparable decoding ability (Lesaux et al., 2006). There are a couple possible explanations. The first explanation is that reading should be modeled differently for ELLs than non-ELLs. The results of the current study are not consistent with this hypothesis because there was no significance evidence that language status was a moderator in the study model. The second explanation, and more likely, is that reading is modeled the same for both groups, but ELLs tend to have lower listening comprehension skills than non-ELLs. We know that ELLs tend to have lower reading comprehension skills than their non-ELL peers even when they have comparable decoding skills (Lesaux, et al., 2006). Research also indicates that the relation between reading fluency and reading comprehension is as strong as for ELLs as non-ELL students (Crosson & Lesaux, 2010; Riedel, 2007; Wiley & Deno, 2005). Out of the two exogenous variables in the study, listening comprehension skill emerges as the possible contributing factor to the difference in reading comprehension between groups. The Simple View maintains that listening comprehension and decoding produce proficient reading comprehension via a multiplicative relation. If either listening comprehension or decoding were reduced to zero, then reading comprehension would not occur. Consequently, proficient reading ability is constrained by whichever factor is the least developed. If decoding ability is equal across both ELLs and non-ELLs, and yet reading comprehension is lower for ELLs than non-ELLs, then according to the Simple View, the ELLs' reading comprehension would be limited by their listening comprehension ability. ELLs would be expected to have less developed English language skills than their non-ELL peers. Thus, their ability to comprehend written, connected text in English may be constrained by their limited knowledge of spoken English. Even if they can break the visual code, to read for meaning they must map the visual code onto semantic meaning units. This task could be more difficult if one is pulling from a limited bank of English language knowledge and lacks the language fluency to put together the meanings of multiple words to understand the meaning of a sentence or phrase as a whole.

Limitations

Sample size. The sample consisted of 74 non-ELLs and 30 ELLs. The small sample of ELLs may indicate that the study results are less conclusive than they would be with a larger sample. With a small sample size, it is unlikely that small effects would be able to be detected. A more robust sample size would enable more sensitivity to small effects and medium effects. Given the small sample size, we can only be confident in the ability to detect larger effects for ELLs. In the current study, the unconstrained model paths for ELLs had 95% Confidence Intervals ranging from ± 0.07 to 0.57. For non-ELLs in this study, model path confidence intervals ranged from ± 0.08 to 0.50. As seen from this example, the larger sample size has a narrower confidence interval than the group with the smaller sample size. With a narrower confidence interval, a larger sample size enables a more precise estimate of a given path in the model.

Sample composition. There were significant challenges in recruiting Spanish-speaking ELLs to participate in the current study. In each of the three school districts, there was a small ratio of ELL students to non-ELL students, and so it was more difficult to obtain an adequate number of ELL participants than it was to get a reasonable number of non-ELL participants. As the study progressed, more individualized recruitment methods were used to obtain a large enough sample of ELL students. Given the small available sample of ELLs available in the local community, students from both English Language Development (ELD) programs and bilingual/immersion programs were recruited and included in the study. A study sample of ELLs from both types of programs could have impacted results due to unmeasured but potentially large differences in ELD student exposure to instruction in English relative to ELL students in bilingual programs. This study did not examine exposure to listening to spoken English or reading in English. The home language background of student participants was also not measured. Differences in instruction, including language of instruction, across schools were not measured, and so it is unknown the extent to which school-level instructional and language variables differed across participants or affected student performance in English, if at all.

Oral language variables. The present study found a significant direct effect from one oral language variable, listening comprehension, to reading comprehension. This study included listening comprehension but did not include any other oral language or background knowledge variables that might influence reading proficiency. Adequate oral language skills and background knowledge are important to gaining meaning from written text. While the current study examined listening comprehension in isolation, some prior studies have categorized listening comprehension and vocabulary together into a broader oral language construct (Pikulski & Chard, 2005; Ehri, 1998; Kendeou et al., 2009). To be able to read proficiently for meaning, students need to be able to accurately decode printed text and then have the language base and background knowledge to be able to interpret the decoded text. Additionally, while listening comprehension directly and significantly predicted reading comprehension, some of this relation could be due to shared method variance. Both skills were measured using cloze measures (i.e., Oral Comprehension and Passage Comprehension subtests), which required students to either listen or read a sentence and fill in the missing word. Thus, the way in which listening comprehension proficiency was measured may have contributed to the relation between both skills.

Implications for Future Research

This study provides directions for future research regarding the Simple View of Reading with ELLs. The current study did not have a large sample of ELLs, instructional differences between ELLs were not measured, and so the impact of school-level instructional variables (e.g., language of instruction) is unknown. Given that the study model fit similarly for ELLs compared to non-ELLs across multiple school sites and presumably different languages of instruction, these additional variables may not be very impactful. Students with presumably less exposure to English (i.e., bilingual programs) may have lower listening comprehension scores in English than their ELD peers, and subsequently lower oral reading fluency and reading comprehension scores. However, if there is not a significant difference in the model between ELL and non-ELL students, then the model may also fit similarly for ELL students in bilingual programs compared to ELL students from ELD programs. Future research could study the impact of school-level instructional variables, including language of instruction. Future studies could also compare non-ELLs, ELLs in ELD programs, and ELLs in bilingual programs to examine the degree to which oral reading fluency and the Simple View accurately model reading performance for ELL students in different programs.

The present study examined only one oral language variable: listening comprehension. While some studies may aggregate multiple variables to form a single latent oral language variable (Kendeou et al., 2009), it would be difficult to examine the unique contributions of each component to reading comprehension. By including only one oral language variable in the present study, it is possible that additional variance in reading comprehension could have been explained by other oral language variables that were not included in the study. Future research could study the effects of additional variables, such as moderating influences of language proficiency in students' first language and English, the direct effect of vocabulary, and the direct effect of background knowledge on reading comprehension. Additional research could also explore whether vocabulary and listening comprehension should be grouped as a combined oral language variable or separated as different constructs. More studies are needed to examine if there would be justification for separation of variables and if each uniquely predicts reading comprehension. Additionally, the decoding variable was created as a composite of measures that were timed, untimed, and used real words and nonwords. Oral reading fluency was also a timed measure. Future research could examine if whether the timing of measures influences performance for ELLs.

Implications for Practice

There are also implications from this study for practice. First, the results of this study supported the use of the Simple View of Reading as a lens to understand reading and indicated that oral reading fluency may be important as a bridge within this model. As a result, it may be particularly important to periodically assess students' oral reading fluency because it could be used as an indicator of how well students are gaining reading skills and moving from early literacy to more advanced reading skills. Oral reading fluency is both a gauge for evaluating automaticity with earlier reading skills, and also predicts how well students are comprehending written, connected text. As an intermediate skill, the measurement of oral reading fluency may be particularly relevant for third grade students, who are switching from learning to read to being expected to glean knowledge from text. Although in the present study, oral reading fluency and decoding were similarly correlated to reading comprehension across both ELLs and non-ELLs, it is still important to regularly assess oral reading fluency (rather than decoding only) to provide an indicator of students' developing automaticity with decoding.

Second, the support for listening comprehension as a significant and important predictor of both reading comprehension and, to a lesser extent, oral reading fluency, emphasizes the importance of this skill in learning to read. Students need listening comprehension skills both when learning to read in order to map the visual code onto semantic meaning units to facilitate fluent reading, and also to enable the more advanced skill of reading comprehension. Both decoding and listening comprehension should be targeted during early reading instruction and are both extremely important. It is likely that, as third grade students, participants have received at least a couple years of decoding instruction at the time of the present study and so many may have developed foundational decoding skills. Even so, listening comprehension instruction and monitoring may have continued benefit both for developing reading comprehension skills and for facilitating reading fluency as students gain the ability to decode more advanced words. The Institute of Education Sciences Practice Guide for teaching literacy and language to ELLs has several recommendations for teaching oral language skills (Gersten, Baker, Shanahan, Linan-Thompson, Collins, & Scarcella, 2007). To support the development of English language skills, teachers should provide rich vocabulary instruction that includes both everyday language and that used in key instructional content areas. Vocabulary instruction should be explicit, intensive, and provide students with exposure to words across time and modalities (i.e., speaking, reading, writing). Teachers should also integrate instruction on academic English language into the core curriculum and should specifically allocate time to ensure this skill is targeted. Additionally, teachers should consider using peer-assisted learning to provide language practice opportunities for ELLs with their peers, who can serve as language models. ELLs should also be provided with explicit instruction in each of the big five reading skills with multiple opportunities to respond, which would help build their vocabulary knowledge (Gersten et al., 2007). To further build students' language and early literacy skills, one could use strategies such as dialogic reading, read alouds, and providing as much exposure to narrative and expository text as is feasible. It is also worth noting that while some may suggest waiting for decoding instruction until a language base exists, this study does not provide evidence that instruction in the code should be paused to wait for listening comprehension to develop. In the study model, decoding and listening comprehension covaried significantly, which implies that it would be advantageous to teach both skills at the same time, as the skills can have a reciprocal relation.

Last, the Simple View model with the inclusion of oral reading fluency appears to describe the performance of ELLs and non-ELLs similarly for the two paths examined (i.e., oral reading fluency to reading comprehension, listening comprehension to reading comprehension). Of course, other paths in the study model that were not evaluated using partial invariance testing in this study could still vary according to group. Thus, effective reading instructional practices for non-ELLs could also be effective instructional practices for similarly-skilled, Spanish-speaking ELLs. The development of reading skills from breaking the visual code and understanding spoken language, to the acquisition of automaticity, to the eventual development of reading comprehension may be similar across both groups. While the model of reading may be the same, ELLs would likely have more intensive needs in developing listening comprehension in English, and so one may consider targeting instruction toward acquiring and improving this skill. However, the results indicate the importance of well-developed listening comprehension, decoding, and oral reading fluency for all students, including non-ELLs.

Conclusion

The Simple View of Reading, with the addition of oral reading fluency, is an appropriate lens for modeling reading across a sample of third grade students. While the original version of the Simple View does not include oral reading fluency, it appears to function as an important bridge and can explain the development from more preliminary to advanced reading skills within the Simple View.

There were no significant differences between ELL and non-ELL groups regarding the paths from listening comprehension to oral reading fluency and to reading comprehension. The similar paths support the Simple View that it is important for reading instruction to emphasize both word-level decoding to teach students to break the visual code and listening comprehension skills to make the code meaningful. Within the model, listening comprehension directly predicted reading comprehension. This finding supports the perspective that oral language skills are important for developing more advanced reading skills and are not only important in the beginning stages of reading. Oral language skills may become especially important for advanced readers where vocabulary and background knowledge may be the limiting factor in reading comprehension, rather than decoding. If we want students to develop good reading comprehension skills, both prerequisite skills in the Simple View, decoding and listening comprehension, should be targeted in instruction.

Oral reading fluency appears to be a bridge from word-level decoding to reading comprehension. In addition, it is partially a bridge from listening comprehension to reading comprehension, although there was a significant and larger direct effect from listening comprehension to reading comprehension that did not go through oral reading fluency. It is worth considering altering the Simple View to include oral reading fluency as a bridge, or intermediate skill when modeling reading. Oral reading fluency incorporates automaticity with the visual code and, to some extent, automaticity with processing spoken language for meaning. Oral reading fluency helps explain how preliminary reading skills are related to the more advanced skill of reading comprehension through the development of automaticity.

APPENDIX A

PARENT CONSENT FORM

PARENT / GUARDIAN PERMISSION FORM

Your child is invited to participate in a research study conducted by Tiffany Beattie, from the University of Oregon Special Education and Clinical Sciences Department. I hope to learn about how students' reading skills affect their reading comprehension. I will compare students who only speak English with those who are learning English as a second language. The results of this study will be used in a paper that will fulfill a graduation requirement. Your child was selected as a possible participant in this study because your student is a third-grade student.

If your child participates, a trained student from the University of Oregon will give assessments to your child during one individual session for about 30 minutes at your child's school. Assessments will be given during the school day. The assessments will include activities where your child will be asked to read aloud some words, fake words, and passages. Your child will be asked to listen to passages and identify the missing words.

I will also ask for your child's language status from your child's school district to let me know if your child is learning English as a second language. The purpose is to measure reading skills. There is little risk to participate in this study. Your child can stop participating in this study at any time without penalty. The results of this research could help teachers know how to provide more effective reading instruction. However, I cannot guarantee that you or your child will personally receive any benefits from this research. If most students in the class return this parent permission form to your child's teacher or to me, your child will receive a small toy to thank your child for returning this form, even if they don't agree to participate.

Any information from this study that can be identified with your child will remain confidential by storing paper test records and language status documentation in a locked cabinet, and these papers will be destroyed after three years. After your child's assessment session, only I will have access to the paper test records and language status documentation with your child's name. I will offer to share the summary of results with your child's district. These results will include groups of students. Individual child results will not be presented, and your child's name will not be included.

Your child's participation is voluntary. Your decision whether or not to let your child participate will not affect your relationship with your child's school or teacher. If you allow your child to participate, you are free to withdraw your consent and discontinue your child's participation at any time without penalty. On the day of the assessment, your child will be asked if they agree to participate in the study prior to giving your child any assessments.

If you have any questions, please contact Tiffany Beattie at (xxx) xxx-xxxx or tbeattie@uoregon.edu, or my advisor, Dr. Roland Good, at (xxx) xxx-xxxx. For questions in Spanish, contact Cecilia Valdovinos at (xxx) xxx-xxxx. If you have questions regarding your child's rights as a research subject, contact Research Compliance Services, University of Oregon, Eugene, OR 97403, (541) 346-2510.

Child Name ___________________________________

Your signature indicates that you have read and understand the information provided above, that you willingly agree to your child's participation, that you grant permission to obtain language status from your child's school district, that you may withdraw your consent at any time and discontinue participation without penalty, that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Print Parent/Guardian
Name____

Parent/Guardian Signature___________________________________ Date____________
____

OR, you do not grant permission for your child to participate in this research study.

Parent/Guardian Initial ___________ Date ______________

FORMULARIO DE PERMISO DE PADRE OR GUARDIA

Su estudiante está invitado a participar en el estudio de investigación realizado por Tiffany Beattie, de la Universidad de Oregon en el Departamento de Educación Especial y Ciencias Clínicas. Espero aprender como las habilidades de lectura de los estudiantes afectan sus comprensiones lectoras. Compararé a estudiantes que solo hablan inglés con estudiantes que están aprendiendo inglés como su segundo idioma. Los resultados de este estudio serán usados en un documento que cumplirá con un requisito de graduación. Su estudiante fue seleccionado como posible participante de este estudio porque es un estudiante en el tercer grado.

Si su estudiante participa, un estudiante entrenado de le Universidad de Oregon le dará evaluaciones durante una sesión individual de 30 minutos en la escuela. Las evaluaciones se harán durante el día escolar. Las evaluaciones incluirán actividades donde se le preguntará a su estudiante que lea algunas palabras en voz alta, palabras falsas y pasajes. Se le preguntará a su estudiante que escuche algunos pasajes y que identifique las palabras que faltan.

Yo le preguntaré al distrito por el estado de lenguaje de su estudiante para saber si es un estudiante que está aprendiendo inglés como su segundo idioma. El propósito es medir las habilidades de la lectura. Existe poco riesgo para participar en este estudio. Su estudiante puede dejar de participar a cualquier momento sin penalización. Los resultados de este estudio podrían ayudar a los maestros a saber cómo proporcionar una instrucción de lectura más efectiva. Sin embargo, no puedo garantizar que usted o su estudiante recibirán beneficios como resultado de este estudio. Si la mayoría de estudiantes en el salón de clase me devuelven este formulario de permiso, su estudiante recibirá un juguete chico como regalo de agradecimiento, aunque su estudiante decida no participar.

Información identificativa de su estudiante permanecerá confidencial. Registros de pruebas y documentación de estado de lenguaje serán cerrados con llave en un gabinete y serán destruidos después de tres años. Después de la evaluación, solamente yo tendré acceso a los registros de pruebas y estado de lenguaje con el nombre de su estudiante. Ofreceré compartir un resumen de los resultados del estudio con el distrito escolar de su estudiante Estos resultados incluirán solamente análisis de grupos de estudiantes. Los resultados de estudiantes individuales y el nombre de su estudiante no serán compartidos.

La participación de su estudiante es voluntaria. Su decisión de dejar o no a su estudiante participar en el estudio no afectará su relación con la escuela o la maestra del estudiante. Si deja participar a su estudiante, usted tiene la libertad de retirar su consentimiento y descontinuar su participación a cualquier momento sin penalización. Se le preguntará a su estudiante en el día de la evaluación si quiere o no participar en el estudio antes de la evaluación.

Si tiene preguntas contacte a Tiffany Beattie al (xxx) xxx-xxxx, tbeattie@uoregon.edu, o a su consejero, Dr. Roland Good al (xxx) xxx-xxxx. Para preguntas en español llame a Cecilia Valdovinos al (xxx) xxx-xxxx. Si tiene preguntas sobre los derechos de su estudiante como participante de estudio, contacte a Research Compliance Services, University of Oregon, Eugene, OR 97403, (541) 346-2510.

Nombre del estudiante ___________________________________

Su firma indica que ha leído y comprende la información proporcionada arriba, que de buena gana acepta la participación de su estudiante, que da permiso para obtener el estado de lenguaje de su estudiante por medio del distrito escolar, que puede retirar su consentimiento de participación a cualquier momento sin penalización, que tiene y ha recibido una copia de esta forma, y que no está renunciando reclamaciones legales, derechos o recursos.

Imprimir Nombre de Padre o Guardia____

Firma de Padre o Guardia_______________________________ Fecha _______________

O, usted no da permiso que su estudiante participe en este estudio de investigación.

Iniciales de Padre o Guardia ___________ Fecha ______________

APPENDIX B

STUDENT ASSENT FORM

University of Oregon
Child Assent for Participation in Research Study

This is a project that we are doing with third grade students to learn more about how to help children read well and understand what they read. You can help with this project if you would like to. You do not have to help if you do not want to.

In the project you will be asked to do some tasks, such as reading real words and made up words. You will listen to and read some sentences with missing words and tell me what you think the missing words are. You will also read a story to me for one minute. Altogether, you would work with me for about 30 minutes. I will also ask your school if they know if you speak any languages other than English.

Your name will be on the papers I use during my time with you today, and on a paper I get from your school about any other languages you speak, but after we are finished these papers will be locked away in a file cabinet so no one but the person in charge of the project can see them.

If you decide to help with this project but then change your mind you can stop helping at any time.

If you do not understand what I would like you to do, please ask questions.

If you want to help with this project, please write your name on the line below.

____

Student's Name ____

Student's Signature ____

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