UNIVERSITY OF CALIFORNIA

Santa Barbara

Effective Teaching Strategies for Predicting Reading Growth in English Language Learners

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Education

by

Melina Melgarejo

Committee in charge:

Professor Michael Gerber, Chair

Professor Laura Romo

Professor Mian Wang

September 2017

The dissertation of Melina Melgarejo is approved.

_____
Mian Wang

_____
Laura Romo

_____
Michael Gerber, Committee Chair

September 2017

Effective Teaching Strategies for Predicting Reading Growth in English Language Learners

ACKNOWLEDGEMENTS

There are several people I need to thank for helping get to this milestone in my life.

I would like to thank my committee chair and advisor, Michael Gerber for taking me in as a student fresh out of college and seeing the potential in me to be a great researcher. You have always been a champion for your students, helping us to see the best in ourselves even when we might doubt ourselves.

I would like to thank my committee member and mentor, Laura Romo, for your unwavering support throughout this challenging process. I would not have been able to finish this dissertation without your help. Thank you for spending countless hours with me pouring over data, running analysis, and tirelessly editing my dissertation. I also thank you for the research and mentorship opportunities you presented me with throughout my time in graduate school. You have served as an incredible example for me of what a Latina in research can accomplish.

I would also like to thank my committee member, Mian Wang, for your constructive comments and encouragement over the years. I would also like to express my gratitude to my boss and mentor, Rosy Matos Bucio for her unwavering support over the years. Thank you for consistently checking in on my progress, adjusting my workload whenever necessary, and motivating me to finish.

Lastly, I would like to thank my family for being a constant source of support and encouragement for me throughout graduate school. Thank you for being proud of me and loving me through the ups and downs. I dedicate this degree to my parents who sacrificed so much to give my siblings and me the best life possible.

ACKNOWLEDGMENTS OF GRANT FUNDING

This study used data collected from longitudinal research funded by United States Department of Education, Cognition and Student Learning Program, Institute of Education Sciences Grant R324A090092, awarded to H. Lee Swanson. The results and conclusions presented in this study belong to the current author and are not those of the funding agency.

CURRICULUM VITA OF MELINA MELGAREJO

EDUCATION

2017 Ph.D., Education, University of California, Santa Barbara
Emphasis: Special Education, Disabilities, and Risk Studies
Expected Graduation Date: September 2017

2015 M.A., Education, University of California, Santa Barbara
Emphasis: Special Education, Disabilities, and Risk Studies
Thesis title: Examining Effective Instructional Practices and Implications of Oral Language Proficiency for English Language Learners

2010 B.A., Chicano Studies, University of California, Santa Barbara
Minor: Applied Psychology

RESEARCH INTERESTS

English Language Learners, Reading Disabilities, Learning Disabilities, Behavioral Interventions, Child Development, Autism Spectrum Disorder

PUBLICATIONS IN PREPARATION

Melgarejo, M. (2016). Common Core Assessments and Accommodations for English Language Learners and Students with Disabilities.

Melgarejo, M. (2016). Autism Spectrum Disorder and Latino Culture: Cultural Perspectives, Parental Involvement, & Collaboration Strategies in Intervention Programs for Latino Children with ASD and Disabilities.

RESEARCH FUNDING & AWARDS

$11,000 Thomas Haring Fellowship Award, UCSB, 2012

$6,000 Block Grant Award, UCSB, 2012-2013

$8,500 Block Grant Award, UCSB, 2013-2014

$6,500 Block Grant Award, UCSB, 2014-2015

CONFERENCE PRESENTATIONS

Melgarejo, M. (2013). Effective instructional practices predicting reading growth in ELLs with reading difficulties. Biliteracy Forum. Santa Barbara, California.

Moran, A., Lussier, C., & Melgarejo, M. (2012). The effects of comprehension intervention on mathematics problem solving for English language learners. Council for Exceptional Children (CEC). Denver, Colorado.

Melgarejo, M. & Gerber, M. M. (2012). Effective classroom instructional practices predicting vocabulary outcomes for English learners. Council for Exceptional Children (CEC). Denver, Colorado.

Melgarejo, M. (2011). PPVT and FIRE correlation. University of California Riverside-Santa Barbara Joint In-House Conference for the Bilingual Literacy and Cognition Grant. University of California, Riverside.

TEACHING ASSISTANT EXPERIENCE

Aug 2017-Present — Teaching Assistant, Introduction to Child and Adolescent Development, University of California, Santa Barbara
Supervisor: Dr. Laura Romo

- Developed and coordinated lesson-appropriate materials.
- Delivered lectures on child development, developmental disorders, and Autism.

2012-2014 — Teaching Assistant, Practicum in Individual Differences. University of California, Santa Barbara.
Supervisor: Dr. Michael Gerber.

- Developed and coordinated lesson-appropriate materials.
- Lead class discussions and presentations on behavior management, RTI, and issues in Special Education.
- Fostered relationships with local elementary schools in order for undergraduates to voluntarily tutor at-risk children.
- Course curriculum consisted of training upper division undergraduate students to tutor at-risk elementary age language learners in a direct instruction method (Core Intervention Model).

EXPERIENCE

Mar 2017-Present — Mentor, New Heights Mentoring Program. Chicano Studies Institute, University of California, Santa Barbara.

- Mentor first-generation college students.
- Held small-group meetings on topics including asking for letters of recommendation, writing a CV, applying to graduate school, becoming involved in research.

Feb 2015-Present — Behavioral Consultant, Alegria Developmental and Behavioral Consultants. Santa Barbara, California.

- Design interventions using evidenced-based practices, individually tailored to each child.
- Specializing in implementing bilingual programs in ELL homes.
- Implement a collaborative parent consultation model to ensure effective and efficient learning.
- Collaborate with school districts by working within schools training staff on ABA strategies.

Apr 2015-Present Graduate Student Researcher, Preschool Project, Chicano Studies Institute. University of California, Santa Barbara.

- NIH-funded research program that designs and implements preschool biology curriculum for low-income Latino children to foster conceptual understanding of cold and flu prevention, as well as food and nutrition. The program enriches the preschoolers' learning experiences by teaching them how to ask questions, generate explanations, and make predictions. It also identifies what linguistic support is necessary for English learners to promote gains in academic language and understanding.
- Work within preschools, systematically interviewing students on biology-based curriculum.
- Transcribing student interviews.

2011-2015 Clinical Supervisor, Holdsambeck & Associates, Inc. Santa Barbara, California.

- Develop and manage ABA home-based treatment plans.
- Provide specialized ABA therapy to children and adults.
- Specializing in implementing bilingual programs in ELL homes.
- Train professionals and parents in home settings.

2010-2013 Graduate Student Researcher, Project Title: Growth in Literacy Language, and Cognition for Children with Reading Difficulties Who are English Language Learners. University of California, Santa Barbara.

- Coordinated IES-funded longitudinal research program with University of California, Riverside and University of California, Santa Barbara, investigating differential growth patterns of Spanish speaking English Language Learners at risk for reading disabilities in early elementary school.
- Responsible for annual implementation of over 150 bilingual English/Spanish student assessments and classroom instruction observations with school, teachers, and undergraduate testers and research assistants.
- Trained undergraduate research assistants to administer bilingual assessment battery in standardized manner to elementary students (1st-5th grade) in English and Spanish.
- Conducted systematic classroom literacy instruction observations each year.
- Annually recruited, screened, and trained over 40 bilingual undergraduates for research assistants. Training components consisted of assessment, observation, scoring, and data entry procedures (ED 199RA).
- Taught undergraduate research course component (ED 199) with advanced undergraduates, including literature review, data analysis with SPSS,

reporting results, and dissemination via writing research papers and creating research posters.

2010-2011 Co-Instructor, After School Education & Safety Program, Boys & Girls Club. Goleta, California.

- Co-Manage an after-school program comprised of 75 elementary-aged students.

2009-2010 Research Assistant, Gevirtz Graduate School of Education. University of California, Santa Barbara.

- Implemented bilingual English/Spanish student assessments to assess and model cognitive and reading growth differences in reading-disabled and non-disabled samples of students.
- Responsible for data entry, data analysis, and literature reviews.

REFERENCES

Dr. Michael Gerber
Professor in the Gevirtz Graduate School of Education
University of California, Santa Barbara
Office: (805) 893-4439
Email: mgerber@education.ucsb.edu
Address:
Dr. Michael Gerber
Gevirtz School

Dr. Laura Romo
Professor in the Gevirtz Graduate School of Education
University of California, Santa Barbara
Office: (805) 893-3081
Email: lromo@education.ucsb.edu
Address:
Dr. Laura Romo
Gevirtz School

Dr. Rosy Matos Bucio
Founder/Director of Alegria Developmental & Behavioral Consultants
Office: (805) 637-1761
Email: rosy@myalegria.org
Address:
Dr. Rosy Matos Bucio
5662 Calle Real #112
Goleta, CA 93117

ABSTRACT

Effective Teaching Strategies for Predicting Reading Growth in English Language Learners

by

Melina Melgarejo

The goal of the present study was to examine how effective use of teaching strategies predict reading growth among a sample of English Language Learners. The study specifically examined whether the types of teaching strategies that predict growth in decoding skills also predict growth in comprehension skills. The sample consisted of students in 1st grade (n=115) and 2nd grade (n=95) who were identified as English Language Learners by their California English Language Development Test (CELDT) scores. Students were assessed with decoding and comprehension reading measures in the Fall of the first year of the study and in the Fall of the second year of the study. Classroom observations were conducted at three time points during the school year during language arts instruction. The English Language Learner Classroom Observation Instrument was completed to record objective measures of reading instruction during classroom activities. A total of 24 first-grade (n=14) and second-grade (n=10) classrooms were observed over the course of the first year of the study. Our findings suggest that teaching strategies are differentially effective for different reading skills and outcomes. This suggests that instructional intent is important to consider in the implementation of teaching strategies. Growth in beginning stages of reading such as

sight-word reading might be associated primarily with strategies targeting engagement, while reading skills such as decoding and comprehension require strategies in which the teacher is focused on modeling skills and strategies and monitoring student comprehension. Our preliminary analyses suggest that there are different sets of strategies that are uniquely effective depending on the desired reading outcome.

TABLE OF CONTENTS

LIST OF TABLES

Chapter I

Introduction

The Latino child population comprises almost a quarter of the entire child population and is the fastest growing portion of students in the United States (Kindler, 2002). During the school year of 2014-2015, there were 4.6 million public school students in the United States who were English Language Learners (NCES; McFarland et al., 2017). Researchers project that by 2025, a quarter of the school-aged population in the U.S. will consist of English Language Learners (ELLs) (Van Roeckel, 2008). The United States Department of Education defines an English Language Learner as "an individual who, due to any of the reasons listed below, has sufficient difficulty speaking, reading, writing, or understanding the English language to be denied the opportunity to learn successfully in classrooms where the language of instruction is English or to participate fully in the larger U.S. society. Such an individual (1) was not born in the United States or has a native language other than English; (2) comes from environments where a language other than English is dominant; or (3) is an American Indian or Alaska Native and comes from environments where a language other than English has had a significant impact on the individual's level of English language proficiency" (NCES; USDOE, 2014). By far, the majority of ELLs in the United States—77.1 percent—have a home language of Spanish (NCES; McFarland et al., 2017). Furthermore, the majority of ELLs—60 percent—come from low-income families with parents that have limited educational backgrounds (NCES; Aud et al., 2013). Consequently, ELLs are at risk for poor school outcomes not only because of language, but also because of socioeconomic factors.

According to the National Assessment of Educational Progress (NAEP) non-ELL students in the United States score significantly higher in reading than their ELL peers in

every assessment conducted annually (NCES; Kena et al., 2014). In particular, ELLs demonstrate remarkably low proficiency levels in reading comprehension, which is the skill that matters most for academic success (National Early Literacy Panel; Lonigan et al., 2008; Snow, Burns & Griffin, 1998). Not only does this achievement gap exist, but it also widens as students grow older. This trend is troublesome. ELLs have one of the highest high school dropout rates as a group in the country and one of the lowest rates of enrollment in college. Students who cannot comprehend what they read are not likely to acquire the skills necessary to participate in the workforce or in higher education. Thus, reducing inequality in reading comprehension in the early elementary school years becomes an essential component of any effort to improve the life chances of ELL students.

Researchers are in agreement that five areas of instruction are essential to an effective reading program for all students: phonemic awareness, phonics, fluency, vocabulary, and comprehension (NICHD, 2000). Phonemic awareness refers to the ability to hear and manipulate different sounds in a language and is a strong predictor of how well students will read in kindergarten and first-grade (NIHCD, 2000). Fluency refers to the ability to accurately read text quickly and is important stage of reading development between word recognition and reading comprehension, student's understanding of a text (NIHCD, 2000). Vocabulary instruction, in which students are taught to recognize and understand words in a reading passage, is also key to the development of reading comprehension (NIHCD, 2000). Both the National Literary Panel and Center for Research on Education, Diversity and Excellence report that there are similarities between ELLs and non-ELLs in the cognitive processes involved in learning to read. That is, instruction in vocabulary, phonemic awareness, phonics, comprehension and writing leads to higher reading growth for both

groups (Goldenberg, 2008). These similarities have provided researchers and educators with a starting point in identifying best instructional practices that are suitable for ELL students. However, it is widely known that when ELL students are instructed in English, they require additional instructional supports (Goldenberg, 2010).

Research on instructional practices that yield positive outcomes for English learners has been growing. For example, researchers suggest that teachers should have students read aloud passages of text in timed tasks to increase fluency (Lems, 2012) and to introduce new words through meaningful text to improve vocabulary knowledge (Carlo et al., 2004). To increase comprehension, ELLs benefit from summarizing text and identify main themes as teachers use questions to lead students to the main idea of the passage (Solari & Gerber, 2008). However, good reading instruction for ELL students also requires an understanding of how teachers should adapt their teaching to the linguistic needs of the students during instruction. Teachers need to rely on "instructional flexibility" so they can provide explicit instruction to struggling learners *during* instruction who need the additional modeling and support (Villaume & Brabham, 2003). More research is needed to identify effective strategies that teachers use to increase students' attention, engagement, responsiveness and comprehension that cut across instructional practices.

The general goal of this study was to examine the strategies teachers use to adjust their teaching and communication to advance the reading skills of their Latino 1st and 2nd grade ELL students and the predictive value of these strategies on reading growth. As an example, consider the fact that a number of major studies have demonstrated the importance of direct or explicit instruction to struggling students that include explicit explanations, modeling or demonstrating (see Rupley, Blair, & Nichols, 2009). If this is the case, then

teachers of ELL students should include these strategies in their repertoire of teaching methods. The notion that teachers should incorporate explicit instruction in their lessons when teaching ELL students, or any struggling reader for that matter, is not a new concept in the literature by far. Yet, the paucity of the literature on the operationalization of various teaching strategies and which other types of teaching strategies are effective as a *cluster* leaves the door open for more research on this topic. Researchers and educators can pinpoint specific types of teacher–student back-and-forth exchanges and communication that are effective in fostering reading skills.

This study addresses this general research question by identifying techniques teachers use to engage and monitor their ELL students during reading lessons. In this study, observers took field notes in the classrooms and later quantified how various teaching strategies enhanced the quality of their instruction as measured in part by the responsiveness of the students. Classroom observation studies tend to rely on field notes to make qualitative comparisons among different teachers. Qualitative methods are valuable in capturing the nuances of various teaching strategies, and the field has made great advances in our knowledge about different teachings styles. However, the advantage of quantifying teacher strategies is that these scores can then be entered in statistical analyses to examine their predictive value in student reading growth.

Successful reading requires both decoding and comprehension skills (Hoover & Gough, 1990). Reading comprehension is first built upon decoding skills – emphasized primarily in the early elementary years (NORC, 2013). Yet, comprehension skills vary greatly starting from the beginning of elementary school and the gap remains persistent over time. Stanovich and Cunningham (1997) found that differences in reading comprehension in

first grade predicted reading comprehension 10 years later, in 11th grade. This finding underscores the importance of identifying effective teaching strategies that predict reading growth in comprehension for ELLs early on in elementary school. As a related note, an open question is whether teaching strategies that facilitate decoding skills are similar to or different from those that facilitate comprehension. Therefore, both decoding skills and comprehension skills were the outcomes of interest in terms of the growth of the ELL students' reading skills.

Research suggests that ELLs can learn some literacy skills in English even before reaching some threshold of English language proficiency, such as word-level skills like decoding and word recognition. However, this is less so the case for text-level skills like reading comprehension and writing. Despite adequate word reading skills, ELLs consistently underperform their English-speaking only counterparts on measures of reading comprehension at the later grades when comprehension is heavily dependent on linguistic knowledge (Kieffer, 2008; Proctor et al., 2005). It seems that many ELL students can keep pace with their English-speaking peers when the focus is on word-level skills, but fall behind when the focus turns to reading comprehension (August & Shanahan, 2006). An exploratory analysis in this study focused on how student growth in English language proficiency was associated with growth in comprehension skills to determine whether growth in English language proficiency paralleled growth in comprehension.

The thesis is presented as follows: In Chapter 2, I review the findings associated with classroom observation studies in the literature conducted with limited English-speaking students and the effects of different teaching strategies. I then present literature relevant to the observation instrument that was utilized in this study. The methods are presented in

Chapter 3 and the results are presented in Chapter 4. In Chapter 5, I summarize the findings and provide relevant interpretations.

Chapter II

Literature Review

Classroom observation research

Classroom observation has been a useful tool for broadening our understanding of how to adjust reading instruction for ELLs. For example, Stallings and Kaskowitz (1974) examined classroom instructional strategies of teachers in first-grade and third-grade classrooms. The students in the sample were comprised of several racial and ethnic groups and from both urban and rural areas. The researchers found that higher gains in reading were associated with teaching strategies in which teachers provided immediate feedback and provided guidance to obtain the correct answer. Similarly, Anderson et al. (1979) conducted an observational study of first-grade teachers instructing children in primarily Anglo, middle-class schools. Classrooms were observed and assessed by an instrument that measured the teacher's interactions with the whole class and the teacher's interactions with an individual student. The researchers found that the most effective teachers provided students with ample opportunities for practice and provided frequent feedback, including using ordered turns to give all students an opportunity to respond and adjusting the questions asked to the ability of the specific students.

Similarly, Tikunoff, Ward, van Broekhuizen, Romero, Castaneda et al., (1991) used observation techniques to develop a deeper understanding of strategies that effective teachers use when merging content area instruction with English language instruction. The researchers relied on the *Description of Instructional Practice Profile* to assess teachers' use of 33 instructional behaviors that prior research has shown to be characteristic of effective instruction generally (Brophy & Good, 1986), as well as practices that are advocated for use

with second language learners (Chamot & O'Malley, 1989; Tikunoff, 1985). Observation data of teachers during reading instruction was collected from 45 classrooms of various grade levels at schools participating in a federally funded program referred to "special alternative instructional programs" (SAIPs). As an alternative to transitional bilingual education, SAIP schools provided instruction primarily in English, although a child's native language could be used for clarification.

A factor analysis of the data collected on the teachers' usage of the 33 individual instructional behaviors yielded three constructs related to effective instruction: (1) Teacher's facilitation of ELL students' comprehension and participation; (2) Teacher-structured activities that promoted active use of language; and (3) Use of native language(s) for English language development and concept development. The first factor is of relevance to the current study. Of the 14 behaviors that clustered for this factor, 11 have been identified in the literature as general effective instruction for all students (e.g., monitoring of student progress, adjusting instruction to increase students' success rates, provision of immediate feedback, clear focus on academic goals, reasonably high cognitive expectations, etc.). However, four teaching techniques were related specifically to modifications of instruction for second language students: adjusting and modifying teachers' use of English to make content more comprehensible; allowing for sufficient wait time to respond in English; checking for comprehension during instruction; and structuring opportunities for students to use English. Gersten and Jimenez (1994) observed similar types of strategies in their observational study. For example, teachers spoke in a clearer, unhurried paced than they would in normal conversation, used consistent vocabulary, paused to check on understanding, and extended and elaborated on children's responses to model more complete English structure.

In addition, Leinhardt et al. (1981) investigated reading instructional strategies and their effects on reading outcomes in a longitudinal exploratory study of learning-disabled elementary-aged students. Instructional behaviors included how well teachers modeled concepts, provided explanations and feedback, and monitored students. The researchers found that teachers were spending an insufficient amount of time providing direct, supervised instruction to students. For example, on average teachers were only spending one minute on explaining and modeling elements of reading. Leinhardt et al. (1981) argues that teachers need to be vigilant in identifying students who are off-task more so than other students as they are likely to be the students that are struggling and falling behind.

One direction that educators have taken to accommodate the need for teaching academic content to ELLs while they are still learning English has been to incorporate more sheltered instruction (SI) in their educational programs. Echevarria, Vogt, & Short (2012) developed an observation instrument to determine if teachers of English language learners were including sheltered instruction in their lessons. Sheltered instruction means that the students receive instruction in developing academic English while they are learning grade-level reading content. ELL students are provided extra support by including instructional strategies that make learning more comprehensible to students. Teachers use explicit instructional strategies, such as questioning techniques, to support higher-level thinking that involves predicting, summarizing, problem solving, organizing, evaluating, and self-monitoring. The instructional strategies also involve the students learning in scaffolding techniques that provide the right amount of support. Students are given adequate wait time so they can communicate their answers. The researchers compared English language learning students across grade levels in classes whose teachers had been trained in implementing these

strategies to a high degree to a control group (taught by teachers not trained in these methods) using a prompt that required narrative writing. The English learners in classes whose teachers had been trained demonstrated significantly higher writing scores than the control group.

The English Language Classroom Observation Instrument

Several of the behaviors identified as effective teaching strategies in aforementioned studies served as the basis for the development of the *English Language Classroom Observation Instrument (ELCOI),* an instrument specifically designed to assess how effectively teachers use various strategies and techniques that have been identified as facets of good reading instruction for ELL students (see Gersten et al., 2005). The researchers' aim was to develop an observation measure that would capture the "systematic, intensive, highly interactive" style of reading instruction recommended by the National Research Council (Snow et al., 1998). Through a series of studies to be described, they have been particularly interested in which types of which observed classroom techniques could be linked to student growth in reading. Items on the instrument were derived from four sources: (a) studies on the effective teaching of beginning reading (Anderson et al., 1979; Foorman, Francis, Shaywitz, Shaywitz, & Fletcher, 1997; Stallings & Kaskowitz, 1974); (b) observational studies of reading instruction for students with significant reading problems (Leinhardt, Zigmond, & Cooley, 1981; Stanovich & Jordan, 1998); (c) descriptive studies of effective instructional environments for English language learners (Tikunoff et al., 1991); and (d) the research base on components of an effective beginning reading program (e.g., National Reading Panel; NIHCD, 2000). After field testing a pilot version of the instrument consisting of 50 items, and then going through several revision cycles, the final instrument was composed of 29

items that demonstrated high interrater reliability, with each item rated by an observer on a 1–4 Likert scale, with 4 being *most effective* and 1 being *least effective* in terms of teacher-student interaction. The researchers relied on factor analysis in an exploratory way to generate empirically derived subscales from an initial wave of data collection. To determine the validity of the structure, they assessed whether the same subscale structure remained reliable with a new data set. The subscales were reliable with coefficient alphas ranging from .65 to .91. The subscales are generally described below.

Explicit Teaching/Art of Teaching. This subscale pulls from the concept of explicit instruction in which teachers overtly demonstrate a concept or how to complete a task. The use of explicit teaching has been found effective in teaching students reading skills (Rosenshine & Stevens, 1986). By using the tenets of explicit teaching like modeling, students are provided with clear and specific instructions, an integral factor in teaching ELLs new skills and tasks. Explicit teaching can be used in all facets of reading instruction, including in the five core areas of reading. For example, a teacher might explicitly teach a vocabulary word by incorporating it into several contexts or model a skill such as making a prediction before asking the student to do so. Rosenshine and Stevens (1986) identified six core components of explicit teaching including reviewing previous work, presenting new material, providing guided practice, providing feedback, providing independent practice, and providing weekly and monthly reviews (Rosenshine & Stevens, 1986).

Instruction Geared Toward Low Performers. This subscale incorporates teaching strategies that focus on identifying and helping struggling students. Such strategies include monitoring student understanding, eliciting responses from students, modifying instruction when necessary, and providing extra instruction for students having difficulty. Several

research studies have found that ELLs need modifications in instruction to increase reading outcomes. Some modifications that have been found to help ELLs succeed in reading include using texts with familiar content, using their primary language as support, providing opportunities for meaningful interaction, giving students extra practice, and in general having classroom routines and providing clear instructions (Goldenberg, 2008). Furthermore, this subscale emphasizes checking student comprehension of text by asking questions.

Sheltered English Techniques. This subscale pulls from the concept of Sheltered English, which refers to a set of practices that helps ELLs develop English while also learning the academic content of a lesson. Some techniques that educators use when implementing sheltered English instruction includes incorporating student backgrounds and knowledge into a lesson, explicitly teaching the language of a lesson (words like "summarize" or "review"), using visuals such as sentence strips, using facial expressions and gestures when introducing vocabulary words or new concepts, and encouraging students to elaborate on responses (Gersten et al., 2005). For example, a teacher might use facial expressions to teach vocabulary words such as "sad" or "happy." Sheltered English strategies target these issues by providing instruction appropriate for a student's language proficiency without oversimplifying the content of a lesson.

Interactive Teaching. This subscale focuses on the teacher's ability to hold student engagement and their ability to keep students on task. In addition to securing student attention, strategies in this cluster include incorporating student ideas into a lesson and giving students wait time to respond to questions. Students who spend more time engaged in reading activities rather than distracted with other tasks perform higher on reading measures than students who spend less time engaged (Stallings & Kazkowitz, 1974).

Vocabulary Development. As August, Carlo, and Snow (2005) explain in their study, ELLs with slow vocabulary development have more trouble with reading comprehension than their peers. In their review of methods for promoting vocabulary development, they found that using cognates between native and non-native language was an effective strategy. Lastly, effective vocabulary instruction frequently reviews vocabulary words and incorporates the words into various lessons (Nagy & Herman, 1987; Zahar, Cobb, & Spada, 2001). For this subscale, the observers were asked to identify the effectiveness of techniques such as teaching difficult vocabulary prior to and during lesson, providing systematic instruction to vocabulary development, and structuring opportunities to speak English.

Phonemic Awareness/Decoding. This subscale asked the observer to identify and rate instruction in phonemic awareness and decoding. Phonemic awareness has been found to be a foundational skill for early reading skill development and is a strong predictor of how well students will read in kindergarten and first-grade (NIHCD, 2000). Phonemic awareness is one aspect of phonological awareness, which refers to ability to recognize that words are made up of sounds. For this subscale, the observers were required to rate the effectiveness of techniques such as providing systematic instruction in phonemic awareness, decoding, and letter-sound correspondence.

Findings related to the use of English Language Classroom Observation Instrument *(ELCOI)*

Graves, Gersten, and Haager (2004) examined literacy instruction in 14 ELL first-grade classrooms over the course of a year to explore the relationship between observed teaching strategies and students' growth in reading. The teachers were observed between five

and seven times over the school year during a language arts period that lasted 2.5 hours. Rather than using the subscale scores developed by Gersten et al. (2005), a single score was calculated for the entire *ELCOI* by totaling the effective ratings associated with the individual behaviors and dividing by the total number of observed behaviors. The outcome variable was an oral language fluency measure in which students read passages to determine the number of words read correctly in one minute. The students were tested at the beginning and the end of the school year. The researchers found a moderately strong correlation between the teacher strategy effectiveness scores and student gains from pre-test to posttest on oral reading fluency. As an additional analysis, the researchers examined field notes associated with the observations of two teachers whose students exhibited the highest growth. They found that these teachers implemented several similar practices identified in the *ELCOI* such as student engagement, multiple opportunities to respond, time on task, clear modeling, and attention to struggling readers. This study suggests that the *ELCOI* is a useful tool for capturing effective teaching techniques and strategies used by teachers in ELL student classrooms.

Baker, Gersten, Haager, and Dingle (2006) explored how the *ELCOI* predicted reading growth in first-grade ELL classrooms using additional measures. Reading performance was assessed by the subtests of phonemic segmentation fluency, letter naming fluency, and nonsense word fluency from the *DIBELS*, an oral reading fluency task, and a reading comprehension measure from the *California Reading and Literacy Project*. A score was calculated for each of the subscales. The researchers found each of the subscale scores was associated with a composite measure of reading growth (scores on outcome measures combined) with correlations ranging from .6 to .75.

McIntosh, Graves, and Gersten (2007) described the instructional practices of four teachers of ELL students in multiple-language settings across two years of first-grade teaching and compared the effectiveness of the instructional practices of the four teachers to student reading outcomes in first-grade and during a third-grade follow-up assessment. Raters relied on the *ELCOI* to observe each classroom for the entirety of a language arts period between five and seven times each year. They were particularly interested in the effectiveness of the Instruction Geared Toward Low Performing Student strategies for students who were not responding well to general instructional strategies. In this subscale, teachers are observed for whether they (a) achieve high level of response accuracy; (b) ensure quality of independent practice; (c) engage in ongoing monitoring of student understanding and performance; (d) elicit responses from all students, (e) modify instruction for students as needed; (f) provide extra instruction, practice, and review; and (g) ask questions to ensure comprehension. Student reading skills were assessed with the oral reading fluency measure from the *DIBELS* and the *Passage Comprehension* subtest from the *Woodcock Reading Mastery Test-Revised*. McIntosh et al. (2007) found that for both year 1 and year 2, correlations between the subscale score and gains on oral reading fluency were moderately strong. However, an even stronger relationship appeared to exist between teacher ratings on the Instruction Geared Toward Low Performing subscale and student gains in oral reading fluency. However, correlations were not reported for gains in Passage Comprehension.

The Present Study

A rigorous understanding of how teachers effectively adjust their interaction to the linguistic needs of their learner in the field of ELL reading instruction is an understudied area.

The goal of the present study was to examine how different facets of teaching strategies predict reading growth among a sample of Latino 1st and 2nd grade students. This was accomplished through observations of classrooms during reading instruction. The observation instrument used to capture the nature and the effectiveness of various strategies was the English Language Classroom Observation Instrument (*ELCOI*). An advantage of the using the *ELCOI* is that it relies on taking descriptive field notes and these notes are then translated into quantitative values. This enabled me to statistically analyze which facets of teaching strategies were most predictive of reading growth.

A limitation of existing studies using the *ELCOI* is that outcome variables of interest have focused on phonological awareness and oral reading fluency skills, or composite measures that combined comprehension skills with other reading skills. Although these reading skills tend be correlated, each one is distinct. For example, students must first develop proficiency in decoding before they can effectively comprehend text. There seems to be a lack of standardized assessments targeting the comprehension skills of first-grade ELL students. The reading comprehension measure used in this study, *Passage Comprehension* from the *Woodcock Reading Mastery Test-Revised*, has been used with ELLs of the same age (McIntosh et al., 2007).

This study set out to examine whether the types of teaching strategies that predict growth in decoding skills also predict growth in comprehension skills, and if not, which types of strategies are more or less effective in promoting these different skills. For example, there

is extensive literature on the importance of building vocabulary skills to increase comprehension skills. One expectation would be that strategies involving the development of vocabulary in the *ELCOI* would be predictive of growth in comprehension skills. However, it might be that vocabulary teaching techniques are just one facet of effective teaching strategies that help ELL students develop comprehension skills and other types of teaching strategies are more important.

As a final analysis, I explored how growth in decoding skills and comprehensions skills was associated with growth in English language proficiency. Research suggests language proficiency is closely associated with reading outcomes for ELLs (Kieffer, 2012). Furthermore, studies have found English language proficiency predicts more complex literacy skills like reading comprehension, especially as students grow older (Kieffer, 2012). Therefore, it might be expected that there would be a significant correlation between growth in comprehension skills and growth in English language proficiency. Building on this finding, I was further interested in whether there were any facets of teaching strategies that predicted growth in English language proficiency.

The specific research questions were:

1) Is English language proficiency growth and growth in decoding skills associated with growth in comprehension?
2) How are different facets of observed teaching strategies associated with one another?
3) Do different teaching strategies differentially predict growth in decoding skills, comprehension skills, and English language proficiency?

Chapter III

Methods

Participants

Teachers. The sample consisted of the 24 teachers (14 first-grade teachers and 10 second-grade teachers) at six elementary schools in southern California. All teachers were fully licensed to teach first- and second-graders in the state of California. Teachers in each of the classrooms taught exclusively in English. The teachers were included in this study if at least 5 of the students in their classroom were classified as ELLs. The size of the classrooms ranged from 5 to 12 students, with an average of 6.6.

Students. The classroom consisted of 210 English Language Learning (ELL) 1st and 2nd grade students (101 girls, 109 males) from Spanish-speaking backgrounds. Students were classified as ELLs if their parents reported that a language other than English is spoken at home and by their performance on the California English Language Development Test (CELDT), an English language proficiency measure (CELDT; CDOE, 2009). The test scores indicated that both the 1st graders (n = 115) and 2nd graders (n = 95) scored on average at the Intermediate level one year later in 2nd grade and 3rd grade, (M =451.5, SD = 48.8) and (M =478.6, SD = 50.4), respectively. A total of 93% of the students in the sample qualified for free and reduced lunch.

Procedure

Parents were sent an IRB approved consent form in both English and Spanish by the classroom teacher. Only those children whose parents returned the consent form allowing their children to participate in the study were included in the project. During Fall semester of 1st and 2nd grade (Time 1), a battery of tests were administered to the students consisting of

measures that assessed their reading, vocabulary, working memory, and cognitive abilities, and English language proficiency. The students were tested one-on-one for approximately three hours in two sessions of 1.5 hours over two days. The students were administered the same tests one year later during Fall semester of 2nd and 3rd grade (Time 2). Only the measures associated with decoding and reading comprehension skills were analyzed in this study.

Reading ability measures

Letter-Word Identification. Real letter-word reading efficiency was measured by the subtest Letter-Word Identification in the Woodcock Reading Mastery Test-Revised (WRMT-R; Woodcock, 1987). This was a non-timed, oral test of reading skills in which students are first presented with letters and asked to identify them. The word identification portion of the test entails reading and pronouncing words in isolation from lists of increasing difficulty. Essentially, the listed words must be decoded and pronounced in a manner consistent with the articulation guidelines in order to be counted as correct. Children were assigned one point for each word or letter read correctly. The number of items depended on the age of the child and their selected answers. A basal and ceiling of three items was used for each student. The raw score was converted to a standard score (mean = 100; standard deviation = 15) based on grade level. Test reliabilities for this age group range from the mid-80s to the high-90s.

Word Attack. Pseudoword (non-word) reading efficiency (decoding) was assessed by the Word Attack subtest from the Woodcock Reading Mastery Test-Revised (WRMT-R; Woodcock, 1987). This is an oral, non-timed test in which students were presented with a list of non-words, which gradually increased in difficulty. The non-words followed regular

spelling patterns, requiring students to quickly decipher pronunciations based on their existing knowledge of decoding. Children were assigned one point for each non-word pronounced correctly. The number of items depended on the age of the child and their selected answers. A basal and ceiling of three items was used for each student. The WRMT–R technical manual reports that the internal reliability of the test is .88.

Passage Comprehension. The Passage Comprehension subtest from the Woodcock-Muñoz Language Survey-Revised (WMLS-R; Woodcock, 2005) is an oral, non-timed test that measures vocabulary and short passage comprehension skills. Initial items measure a student's ability to match a symbol with an actual picture. The next set of items requires students to match a short phrase to the appropriate picture when given three choices. The majority of items require the student to supply a missing word to sentences and then to paragraphs of increasing complexity. The child reads a sentence silently and then decides on a specific word needed in the blank to make the sentence complete. Children were assigned one point for each item answered correctly. The number of items depended on the age of the child and their selected answers. A basal and ceiling of three items was used for each student. This subtest yields a raw score that is converted to a standard score (mean = 100; standard deviation = 15). Standard scores were calculated based on grade level using the Woodcock-Muñoz Language Survey (WMLS) Scoring and Reporting Program. The internal reliability reported in the WMLS–R technical manual is .84 for this subtest.

Language proficiency measure

California English Language Development Test. English language proficiency was measured by the California English Language Development Test (CELDT). Students in California are selected to participate in the test based off of parent answers on a Home

Survey. If parent answers indicate a language other than English is spoken at home, the child will be selected to participate. The CELDT serves to identify students with limited English proficiency, determine the level of English language proficiency, and assess the progress of limited English proficient students in acquiring the skills of listening, speaking, reading, and writing (CELDT; CDOE, 2009). Student data for the CELDT was provided by the school district. Students overall proficiency score was used for this study.

Classroom observations

The 24 participating classrooms were observed by bilingual research assistants for 30 minutes at three different time points during the school year (Fall, Winter, and Spring trimesters). During the observations, the observers took qualitative field notes to record descriptive information related to the ways that the teachers tailored reading instruction. Relying on these notes, the observers completed the English Language Learner Observation Instrument, (*ELCOI*). The instrument was composed of 28 behaviors representing different instructional strategies separated into six clusters: Explicitly Teaching/Art of Teaching, Instruction Geared Toward Low Performers, Sheltered English Techniques, Interactive Teaching, Vocabulary Development, and Phonemic Awareness/Decoding. For each behavior, the observer rated the effectiveness of the technique on a 4-pt Likert scale: 0 = strategy not used; *1*= not effective; *2* = partially effective; *3* = moderately effective; *4*=very effective based on whether the strategy was used in interacting with students and how effectively the teacher used the strategy. Table 1 lists the six instructional strategy clusters and associated behaviors.

Table 1

Items from the English Language Learner Classroom Observation Instrument

Explicitly Teaching/Art of Teaching (*Cluster 1*)

1. Models skills and strategies during lesson 2
2. Makes relationships among concepts overt
3. Emphasizes distinctive features of new concepts
4. Provides prompts and cues in how to use strategies, skills, and concepts
5. Length of literacy activities is appropriate
6. Adjusts own use of English during lesson to make concepts comprehensible

Instruction Geared Toward Low Performers (*Cluster 2*)

7. Achieves high level of response accuracy in context of lesson objectives
8. Ensures quality of independent practice
9. Engages in on-going monitoring of student understanding and performance during lesson
10. Elicits responses from all students, including students having difficulty with task at hand
11. Modifies instruction for students as needed during the lesson
12. Provides extra instruction, practice, or review for students having difficulty with task at hand
13. Checks students' comprehension of text by asking questions

Sheltered English Techniques (*Cluster 3*)

14. Uses visuals or manipulatives to teach content
15. Provides explicit instruction in English language use and includes the use of cues and prompts
16. Encourages students to give elaborate responses
17. Uses gestures and facial expressions in teaching vocabulary and clarifying meaning of content

Interactive Teaching (*Cluster 4*)

18. Secures and maintains student attention during lesson
19. Extent to which students are "on task" during literacy activities
20. Selects and incorporates students' responses, ideas, examples, and experiences into lesson
21. Gives students wait time to respond to questions

Vocabulary Development (*Cluster 5*)

22. Teaches difficult vocabulary prior to and during lesson
23. Structures opportunities to speak English
24. Provides systematic instruction to vocabulary development
25. Engages students in meaningful interactions about text

Phonemic Awareness and Decoding (*Cluster 6*)

26. Provides systematic instruction in phonemic awareness
27. Provides systematic instruction in letter–sound correspondence
28. Provides systematic instruction in decoding

Interrater reliability. Two graduate students were extensively trained to independently code the observations. Interobserver reliability was established across an observation period by comparing the field notes of two independent classroom observers and their respective ratings. The observers trained together on three classrooms before independently coding. Reliability estimates were calculated by summing the number of rating agreements across the entire instrument and then dividing by the number of agreements plus disagreements. Graduate students reached reliability after three observations. Across the observations, interobserver agreement was 89%.

Scoring. The effectiveness ratings associated with each of the behaviors were summed for each subscale. There were three observations over the year yielding three strategy effective scores per subscale for each teacher. An overall strategy effectiveness score for each subscale was created by calculating the mean of the three scores. Table 2 shows the means and standard deviations for the strategy effectiveness ratings associated with each subscale.

Table 2

Descriptive statistics associated with teaching strategy effectiveness scores

	Minimum	Maximum	*M*	*SD*
Explicitly Teaching/Art of Teaching	8.00	21.67	13.72	3.82
Instruction Geared Low Performers	7.00	21.00	14.50	3.25
Sheltered English Techniques	2.67	13.00	7.35	3.19

Interactive Teaching	4.00	14.33	9.28	2.67
Vocabulary Development	2.33	12.33	7.49	2.94
Phonemic Awareness/Decoding	.00	9.33	3.33	2.34

Analysis plan

Growth in reading skills and English language proficiency was measured by subtracting the T1 scores of the various measures from their respective T2 scores. All positive values were assigned a "1" indicating growth and negative values or zeroes were assigned a "0" indicating no growth. A series of chi-square tests of independence were performed to assess whether English language proficiency growth and growth in decoding skills was associated with growth in comprehension. A series of correlations were conducted to examine the associations among the various teaching strategy effectiveness scores. To examine how teaching strategies were associated with growth in readings skills, a series of simple regression analyses were performed. The class was the unit of analysis because the observational ratings were based on appraisal of how the teacher worked with the entire class, not with individual target students. Thus, the predictor variable was the observed effectiveness of instruction that the teacher provided to the entire class and the outcome variable was the percentage of students within the class that demonstrated growth in decoding skills, comprehension skills, and English language proficiency.

Chapter IV

Results

Growth in reading skills and English language proficiency by grade level

Table 3 shows the percentages of children who exhibited growth in Letter-Word Identification, Word Attack (pseudoword decoding), Passage Comprehension, and English language proficiency by grade level. A series of chi-square tests of independence revealed no significant differences between the percentages of 1st and 2nd graders who exhibited growth for any of the reading measures or English language proficiency. In further analyses, first and second graders were combined into a single group.

Table 3

Percentages of children exhibiting growth in reading skills and ELP by grade level

Reading abilities	1st graders (%)	2nd graders (%)
Letter-word Identification	48.6	49.4
Word Attack	68.8	58.3
Passage Comprehension	62.0	58.0
English Language Proficiency	31.0	22.0

Associations among ELP growth and decoding skill growth and comprehension skill growth

Three chi-square tests of independence were performed to examine whether English language proficiency growth and growth in decoding skills were associated with growth in comprehension skills (see Table 4). For English language proficiency, the association with growth in comprehension skills was significant, X2 (1, N = 165) = 6.82, p = .007. Children

whose English language proficiency improved from Time 1 to Time 2 were more likely to exhibit growth in comprehension skills compared to children who did not exhibit English language proficiency growth. Improvement on the measures of Letter-Word Identification, $X2\ (1, N = 169) = 9.11$, $p = .002$, and in Word Attack, $X2\ (1, N = 169) = 5.51$, $p = .01$, were also associated with improvement in comprehension skills.

Table 4

Percentages of students exhibiting growth in comprehension skills by growth in decoding skills and growth in English language proficiency

	Comprehension Growth (%)	No Growth (%)
Letter-word Identification	58**	34
Word Attack	70*	52
English Language Proficiency	35**	16

*p < .05; **p < .01

Associations among the teaching strategy effectiveness subscale scores

A series of correlations were conducted to examine the associations among the teaching strategy effectiveness scores. The correlations are presented in Table 5. The results show that all of the subscale scores with the exception of Phonemic Awareness/Decoding were positively correlated with one another ($p < .01$), suggesting that teachers who were highly effective in using one type of strategy were highly effective in using the other strategies.

Table 5

Correlations among teaching strategy effectiveness subscale scores

	Explicit Teaching	Low Performers	Sheltered English	Interactive	Vocabulary
Explicit Teaching	---				
Instruction Low Performers	.82**	---			
Sheltered English	.69**	.71**	---		
Interactive Teaching	.60**	.72**	.65**	---	
Vocabulary Development	.56**	.59**	.74**	.51*	---
Phonemic Awareness	.27	.24	.10	.11	.22

*p < .05; ** p < .01

Regression analyses predicting reading skill growth and English language proficiency growth from teacher strategy effectiveness subscale scores

For each of the three reading skill measures as well as English language proficiency, six simple regression analyses were conducted with teaching strategy subscale scores as the independent variables and the percentages of children within the class who exhibited growth as the dependent variable, yielding 24 regression analyses total. Standard regression coefficients associated with each strategy subscale are presented in Table 6.

Letter-Word identification. Interactive Teaching strategies predicted growth in Letter-Word Identification, $F(1, 22) = 5.07$, $p = .035$, indicating that teachers who were highly effective at maintaining student attention and keeping their students on task had higher percentages of students in their classrooms who exhibited growth in Letter-Word Identification. Moreover, effective use of Sheltered English Techniques, such as explicit instruction in English language and having children give elaborate responses, had a higher percentage of children who improved from Time 1 to Time 2 in Letter-Word Identification,

$F(1, 22) = 7.27$, $p = .013$. Finally, the effective use of Vocabulary Development strategies, such as teaching difficult vocabulary words and engaging children in meaningful interactions about text, also predicted Letter-Word Identification growth, $F(1, 22) = 5.73$, $p = .026$. Explicitly Teaching/Art of Teaching, Instruction Geared Toward Low Performers, and Phonemic Awareness/Decoding did not predict growth in this skill.

Word Attack. A significant regression equation was found for Instruction Geared Toward Low Performers strategies, $F(1, 22) = 8.18$, $p = .009$, indicating that teachers who were more effective at monitoring student understanding, providing struggling students with extra practice, and checking student comprehension of text had a higher percentage of students in their classrooms who demonstrated growth in decoding skills. In addition, Explicitly Teaching/Art of Teaching marginally predicted Word Attack growth, $F(1,22) = 4.16$, $p = .054$, indicating that teachers who more effective at modeling skills and strategies had a higher percentage of students in their classrooms who improved from Time 1 to Time 2 on this outcome. Sheltered English Techniques, Interactive Teaching, Vocabulary Development, and Phonemic Awareness/Decoding did not predict growth in Word Attack.

Passage Comprehension. Instruction Geared Toward Low Performers significantly predicted growth in Passage Comprehension, $F(1, 22) = 4.24$, $p = .050$, indicating that teachers who were more effective at monitoring student understanding, providing struggling students with extra practice, and checking student comprehension of text had higher percentages of students whose comprehension skills improved from Time 1 to Time 2. The scores associated with the remaining subscales were not significant.

English Language Proficiency. No teaching strategy subscales predicted growth in English language proficiency.

Table 6

Simple regression analyses predicting percentages of students who improved from T1 to T2 in reading skills and ELP from observed effective use of teaching strategies

Teaching strategies	Letter-Word Identification β	Word Attack β	Passage Comprehension β	English Proficiency β
Explicitly Teaching	.26	.40†	.36	.13
Instruction Low Performers	.20	.52**	.40*	.15
Sheltered English Techniques	.50*	.23	.36	.02
Interactive Teaching	.43*	.14	.29	.01
Vocabulary Development	.45*	.30	.29	.11
Phonemic Awareness	.19	.23	.17	.15

†p < .06; *p < .05; **p < .01

Chapter V

Discussion

This study was designed to explore how the effectiveness of various teaching strategies displayed by teachers during reading instruction was associated with ELL student growth in reading skills as well as English language proficiency. Research suggests that the quality and effectiveness of instruction is an important factor for reading growth in ELLs (Gersten et al., 2005). Overall, the findings in this study lend credence to the notion that more research is needed in investigating how teachers incorporate teaching strategies in classrooms in ways that engage their students in the learning process. Of particular importance, our findings suggest that teaching strategies are differentially effective for different reading skills and outcomes.

Results from this study support findings in the literature that growth in decoding skills and English language proficiency is associated with growth in comprehension skills. Studies have found English language proficiency predicts more complex literacy skills like reading comprehension, especially as students grow older (Kieffer, 2012). The more proficient that students become in the language of instruction, the more they are able to develop higher-order reading skills such as comprehension. In addition, it is not surprising that decoding skills and comprehension skills were associated with one another given that reading comprehension is first built upon decoding skills. Therefore, the correlations among the outcomes variables demonstrated a pattern of what would be expected from the literature. None of the teaching strategies were associated with growth in English language proficiency. Because several studies indicate the importance of language proficiency in predicting reading outcomes for ELLs, more research is needed on identifying specific strategies that can

simultaneously develop language proficiency. The ELCOI does not seem to a useful tool for this goal.

The major question of interest was how the effective use of different teaching strategies predicted reading growth. Given the paucity of research in comprehension skills at the 1st and 2nd grade level, growth in comprehension was the main outcome of interest. Results from this study showed that the effective use of strategies in the Instruction Geared Toward Low Performers subscale were associated with growth in comprehension skills over one academic year. This finding makes sense in light that the behaviors included in this subscale were on-going monitoring of student understanding, providing extra practice and review for students having difficulty with the task, modifying instruction for students as needed during the lesson, and checking students' comprehension of text by asking questions. To advance students' comprehension skills, teachers have to be attuned to what the students understand or do not understand as the lesson progresses and often in the moment. It seems that teachers who are highly effective at recognizing their students' comprehension needs and respond accordingly are more successful in enhancing their reading comprehension skills. The link between Instruction Geared Toward Low Performers and improvement in comprehension is consistent with a number of qualitative descriptions of teaching strategies utilized by highly effective teachers. Anderson et al. (1979) found that teachers who gave students multiple opportunities for practice and to respond and adjusted questions to individual students had the highest reading achievement in their classrooms. Stallings and Kazkowitz (1974) found that children classrooms in which extensive opportunities for practice were provided had higher reading scores. In addition, Tikunoff et al. (1991) observed that effective teaching included monitoring progress and adjusting instruction to student ability. Graves et al. (2004)

found in their qualitative analysis that teachers who implemented strategies such as monitoring struggling readers had the highest oral reading fluency growth in their classrooms.

The effective use of strategies in the Instruction Geared Toward Low Performers cluster also predicted higher percentages of growth in Word-Attack (decoding). By incorporating these strategies into reading instruction, teachers might identify students who are struggling in developing decoding skills and are able to modify instruction or lessons. In addition, Explicitly Teaching/Art of Teaching strategies in which teachers emphasized distinct features of new concepts and make relationships among concepts overt were also predictive of growth in Word-Attack. The fact that Explicitly Teaching/Art of Teaching strategies predicted reading growth is not surprising given the extensive research on the importance of explicitly teaching reading curriculum to ELL students (NIHCD, 2000; Goldenberg, 2008). Graves et al. (2004) observed that the two teachers with highest reading growth in their classrooms relied on several behaviors listed in the Explicitly Teaching/Art of Teaching cluster during reading instruction, which included modeling strategies and skills. These strategies in all likelihood are just as important for reading comprehension skills, and the fact that the subscales Explicitly Teaching/Art of Teaching and Instruction Geared Toward Low Performers were highly correlated suggests that these clusters of strategies have features in common. The correlations among these strategies have positive implications for training in that it suggests that teachers who are effectively trained in one cluster of strategies are likely to incorporate other types of relevant strategies in their teaching.

Strategy clusters that predicted higher percentages of growth in Letter-Word Identification were entirely different from those that predicted higher percentages of growth

in Passage Comprehension and Word-Attack. One of these subscales included Interactive Teaching which includes strategies such as securing and maintaining student attention, maintaining extent students are on task, incorporating student responses, and giving students wait time to respond (Gersten et al., 2005). Overall, this subscale captured the effectiveness of the teacher's ability to maintain student attention. This is important because the more time a student spends being on task and less time distracted, the more likely a student will exhibit reading gains (Stallings & Kazkowitz, 1974; Leinhardt et al., 1981). Another subscale with predictive value was Vocabulary Development which included strategies such as teaches difficult vocabulary, structures opportunities to speak English, provides systematic instruction to vocabulary development, and engages students in meaningful interactions about text (Gersten et al., 2005). Finally, Sheltered English Techniques was also associated with growth in Letter-Word Identification, which includes strategies like uses visuals and manipulatives, provides explicit instruction in English language use and includes use of cues and prompts, encourages students to give elaborate responses, and uses gestures and facial expressions in teaching vocabulary (Gersten et al., 2005).

An explanation for the link between the strategies in the clusters of Sheltered English Techniques, Interactive Teaching, and Vocabulary Development and growth in Letter-Word Identification is that the aforementioned teaching strategies are most effective and most needed in the beginning stages of reading instruction to build foundational skills. The strategies in these subscales are primarily *engagement* strategies that focus how the teacher is securing attention through a myriad of ways including time management and the use of visuals. Advancing higher-order reading skills such as comprehension require that teachers engage in more complex skills-based teaching behaviors such as the ones included in

Explicitly Teaching/Art of Teaching and Instruction Geared Toward Low Performers. The strategies in these subscales are primarily *didactic* strategies that focus on modeling strategies for students, modifying instruction as necessary, and checking student comprehension. While the literature on these strategies and particular observation measure indicate that all the subscales are associated with reading growth, our preliminary analyses suggest that there are different sets of strategies that are uniquely effective depending on the desired reading outcome.

Limitations

There are a few limitations in this study that need to be considered. This study is unique in that it specifically identifies teaching strategies that predict higher percentages of growth in reading comprehension for first- and second-grade ELL students. To my knowledge, these findings have not been replicated before in studies examining teacher-student classroom interaction with ELL students and their reading outcomes. However, this study is limited in that only one measure of reading comprehension was used due to the lack of age appropriate measures for first-graders. Future studies might include measures of listening comprehension, particularly if examining students in early elementary grades.

Furthermore, the California English Language Development Test (CELDT) might be problematic in assessing language proficiency for students. For one, it includes oral proficiency as one of the measures of language proficiency. This can be problematic for students who show higher deficits in oral language proficiency. Furthermore, the CELDT uses cut points to assign students into five different levels of proficiency. The use of cut points to determine classification has proven to be problematic in correctly identifying English Language Learners and their level of proficiency. As Guzman-Orth explains, cut

points are used as boundaries between categorical groupings, but cut points are a classification system created by researchers that approximate the abilities of students (Guzman-Orth, 2012). A future study might use a differing measure of language proficiency that accounts for these issues and is particularly designed to measure growth.

Like any method, classroom observation has its weaknesses. The *ELCOI* is of moderate-inference and it is possible that while graduate students received substantial training and achieved interrater reliability, there could have been differences on how individuals scored instructional practices. Gersten et al. noted the importance of using observers capable of making "informed judgments, who had extensive classroom experience and would understand the complexity and importance of various classroom events, but who could also be objective about what they did or did not observe" (2005). Nonetheless, the strength of using the *ELCOI* was that it captures spontaneous behaviors that the teachers used that they may not have been aware of, and hence, would not have been captured in an interview or checklist measure.

Given the global nature of capturing effectiveness of teaching strategies and behaviors, measurement error is always a possibility. These methodological barriers are particularly problematic when analyzing teacher data to student data. Legitimate concerns about measures and instruments used for classroom and teacher observations continue to cloud how we identify effective teaching. Classroom observations are a critical component of teacher evaluations programs and fortunately research like that of the Measures of Effective Teaching project continue to explore effective methods of measuring teacher effectiveness. Furthermore, more research is necessary in measuring teacher-student interaction within the classroom.

Conclusion

In summary, it is important to consider sets of teaching strategies in developing instructional practices that advance the different reading skills of ELL students. Our preliminary analyses support the research indicating these sets of teaching strategies are important, but it seems that their effectiveness are differentially effective depending on the reading outcome. This suggests that instructional intent is important to consider in the implementation of these strategies. Growth in beginning stages of reading such as sight-word reading might be associated primarily with strategies targeting engagement, while reading skills such as decoding and comprehension require strategies in which the teacher is focused on modeling and monitoring student comprehension. Teachers can benefit from knowledge of effective teaching strategies that are useful for different reading outcomes. This becomes particularly important as ELLs transition into learning more complex reading skills such as reading comprehension. While exploratory in nature, more observational studies such as presented in this paper are necessary to understand the effectiveness of various teaching techniques and strategies at different stages of reading skill development.

References

Anderson, L. M., Evertson, C. M., & Brophy, J. E. (1979). An experimental study of effective teaching in first-grade reading groups. *The Elementary School Journal, 79*(4), 193-223.

Aud, S., Wilkinson-Flicker, S., Kristapovich, P., Rathbun, A., Wang, X., & Zhang, J. (2013). *T*h*e Condition of Education 2013* (NCES 2013-037). U.S. Department of Education, National Center for Education Statistics. Washington, DC.

August, D., Carlo, M., Dressler, C., & Snow, C. (2005). The critical role of vocabulary development for English language learners. *Learning Disabilities Research & Practice, 20*(1), 50-57.

August, D., & Shanahan, T. (2006). Executive summary. *Developing Literacy in Second-Language Learners: A Report of the National Literacy Panel on Language Minority Children and Youth.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Baker, S. K., Gersten, R., Haager, D., & Dingle, M. (2006). Teaching practice and the reading growth of first-grade English learners: Validation of an observation instrument. *The Elementary School Journal, 107*(2), 199-220.

Brophy, J., & Good, T. (1986). Teacher behavior and student achievement. In M. Wittrock (Ed.), *Handbook of Research on Teaching* (328-375).

California Department of Education (2009). *California English Language Development Test*.

Carlo, M., August, D., McLaughlin, B., Snow, C. E., Dressler, C., Lippman, D. N., Lively, T. J., & White, C. E. (2004). Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms. *Reading Research Quarterly, 39*(2), 188-215.

Chamot, A. U., & O'Malley, J. M. (1989). The cognitive academic language learning approach. *When They Don't All Speak English: Integrating the ESL Student into the Regular Classroom*, 108-125.

Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability 10 years later. *Developmental psychology*, *33*(6), 934.

Echevarria, J., Vogt, M., & Short, D. (2008). Making content comprehensible for English learners: The SIOP model.

Foorman, B. R., Francis, D. J., Shaywitz, S. E., Shaywitz, B. A., & Fletcher, J. M. (1997). The case for early reading intervention.

Gersten, R., & Jimenez, R. T. (1994). A delicate balance: Enhancing literature instruction for students of English as a second language. *The Reading Teacher*, *47*(6), 438-449.

Gersten, R., Baker, S. K., Haager, D., & Graves, A. W. (2005). Exploring the role of teacher quality in predicting reading outcomes for first-grade English learners: An observational study. *Remedial and Special Education, 26*(4), 197-206.

Goldenberg, C. (2008). Teaching English language learners: What the research does—and does not—say. *American Educator*, Summer 2008, 8-44.

Goldenberg, C., & Coleman, R. (2010). *Promoting academic achievement among English learners: A guide to the research*. Corwin Press.

Graves, A. W., Gersten, R., & Haager, D. (2004). Literacy instruction in multiple-language first-grade classrooms: Linking student outcomes to observed instructional practice. *Learning Disabilities Research & Practice, 19*(4), 262-272.

Guzman-Orth, D., Nylund-Gibson, K., Gerber, M., & Swanson, H. L. (in review). The Classification Conundrum for English Learners: A Conceptual Score Approach.

Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and writing*, *2*(2), 127-160.

Kena, G., Aud, S., Johnson, F., Wang, X., Zhang, J., Rathbun, A., Wilkinson-Flicker, S., and Kristapovich, P. (2014). *The Condition of Education 2014* (NCES 2014-083). U.S. Department of Education, National Center for Education Statistics. Washington, DC.

Kieffer, M. J. (2008). Catching up or falling behind? Initial English proficiency, concentrated poverty, and the reading growth of language minority learners in the United States. *Journal of Educational Psychology*, *100*(4), 851.

Kieffer, M. J. (2012). Early oral language and later reading development in Spanish-speaking English language learners: evidence from a nine-year longitudinal study. *Journal of Applied Developmental Psychology, 33*, 146-157.

Leinhardt, G., Zigmond, N., & Cooley, W. W. (1981). Reading instruction and its effects. *American Educational Research Journal, 18*(3), 343-361.

Lems, K. (2012). Reading fluency and comprehension in English language learners. In Rasinski, T. V., Blachowicz, C. L., & Lems, K. (Eds.), *Fluency instruction: Research-based best practices*. Guilford Press.

Lonigan, C. J., Schatschneider, C., & Westberg, L. The National Early Literacy Panel. (2008). *Identification of children's skills and abilities linked to later outcomes in reading, writing, and spelling*.

McFarland, J., Hussar, B., de Brey, C., Snyder, T., Wang, X., Wilkinson-Flicker, S., Gebrekristos, S., Zhang, J., Rathbun, A., Barmer, A., Bullock Mann, F., & Hinz, S. (2017). *The Condition of Education 2017* (NCES 2017-144). U.S. Department of Education, National Center for Education Statistics. Washington, DC.

McIntosh, A. S., Graves, A., & Gersten, R. (2007). The effects of response to intervention on literacy development in multiple-language settings. *Learning Disability Quarterly*, *30*(3), 197-212.

Nagy, W. E., Herman, P. A., McKeown, M. G., & Curtis, M. E. (1987). Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. *The Nature of Vocabulary Acquisition*, *19*, 35.

National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.

Proctor, C. P., Carlo, M., August, D., & Snow, C. (2005). Native Spanish-Speaking Children Reading in English: Toward a Model of Comprehension. *Journal of Educational Psychology*, *97*(2), 246.

Research and Practice in the Field of Early Literacy Learning. (November 2013). Getting on Track Early for School Success. NORC at the University of Chicago.

Rosenshine, B., & Stevens, R. (1986). Teaching functions. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.). New York: Macmillan.

Rupley, W. H., Blair, T. R., & Nichols, W. D. (2009). Effective reading instruction for struggling readers: The role of direct/explicit teaching. *Reading & Writing Quarterly*, *25*(2-3), 125-138.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). Preventing reading difficulties in young children committee on the prevention of reading difficulties in young children. *Washington, DC: National Research Council*.

Solari, E. J., & Gerber, M. M. (2008). Early comprehension instruction for Spanish-speaking English language learners: Teaching text-level reading skills while maintaining effects on word-level skills. *Learning Disabilities Research, 23*(4), 155-168.

Stallings, J. A., & Kaskowitz, D. H. (1974). Follow through classroom observation evaluation 1972–1973 (SRI Project URU-7370). Stanford, CA: Stanford Research Institute.

Stanovich, P. J., & Jordan, A. (1998). Canadian teachers' and principals' beliefs about inclusive education as predictors of effective teaching in heterogeneous classrooms. *The Elementary School Journal*, *98*(3), 221-238.

Tikunoff, W. J. (1985). *Applying Significant Bilingual Instructional Features in the Classroom. Part C Bilingual Education Research Series*.

Tikunoff, W. J., Ward, B. A., van Broekhuizen, L. D., Romero, M., Castaneda, L. V., Lucas, T., et al. (1991). Final report: A descriptive study of significant features of exemplary special alternative instructional programs. Los Alamitos, CA: Southwest Regional Educational Laboratory.

United States Department of Education. (2014). Glossary. *National Center for Education Statistics*. Retrieved from http://nces.ed.gov/programs/coe/glossary.asp

Van Roekel, N. P. D. (2008). English language learners face unique challenges. *An NEA Policy Brief. National Education Association*.

Villaume, S. K., & Brabham, E. G. (2003). Phonics instruction: beyond the debate (Question and Answer). *The Reading Teacher*, *56*(5), 478-483.

Woodcock, R. W. (1987). Woodcock reading mastery test-revised. Circle Pines, MN: American Guidance Service.

Woodcock, R. W., Muñoz -Sandoval, A. F., & Alverado, C. G. (2005). Woodcock- Muñoz language survey. Itasca, IL: Riverside.

Zahar, R., Cobb, T., & Spada, N. (2001). Acquiring vocabulary through reading: Effects of frequency and contextual richness. *Canadian Modern Language Review*, *57*(4), 541-572.