The Academic and Motivational Impact of California Gateways and Lexia Reading on English Language Learners with Disabilities

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THE ACADEMIC AND MOTIVATIONAL IMPACT OF CALIFORNIA GATEWAYS AND LEXIA READING ON ENGLISH LANGUAGE LEARNERS WITH DISABILITIES

by

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APPROVED BY THE GRADUATE ADVISORY COMMITTEE

[Signatures and dates]
Abstract

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This study examined the effectiveness of California Gateways in combination with Lexia Reading on the reading fluency and comprehension skills of 4th and 5th grade English Language Learners with mild to moderate disabilities. Oral reading fluency and maze passage fluency were examined. To evaluate the motivational impact of the intervention, participants completed a pre and post Motivation to Read Profile. A multiple baseline across participants design was used to evaluate the use of daily California Gateways lessons and Lexia Reading intervention with five students who are English language learners and have been identified with disabilities. Curriculum Based Measurement probes were used to measure the effectiveness of California Gateways instruction and Lexia Reading intervention. All five participants increased their reading fluency skill. Three increased their reading comprehension skills, and four of the five participants increased their Self-Concept as a Reader and Value of Reading percentage scores.
Dedication

In memory of Julius Joseph Wilner and Marilyn Simon.

*Breathe Easy*

*The Best There Is*

You are always in my heart.

Love you now and forever Poppa JJ and Nana Marilyn.
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I would like to first and foremost thank my parents, Joshua and Melanie Wilner who raised me with a love for education and supported me in all of my dreams. Thank you for believing and supporting my goals and ambitions. You have always guided me in the right direction, and for that I am eternally grateful. Thank you for your continuous and unconditional love, and for encouraging me to always strive for the best.

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CHAPTER 1

Introduction

Background Information

As an elementary school Special Education Resource Specialist and Language Arts Reading Intervention educator, the difficulties faced by English Language Learners with Mild/Moderate Disabilities (ELLs/D) throughout their reading comprehension lessons become readily apparent. For the purpose of this study, the term English Language Learners with Mild/Moderate Disabilities refers to participants whose primary language is Spanish and secondary language is English. Participants also were identified as having a learning or processing disability and are receiving Special Education services. Students who struggle with reading comprehension are faced with multiple challenges (Gambrell, Palmer, Codling, Mazzoni, 1996). Their limited motivation for reading and overall lack of self-esteem can stem from uncertainties in reading fluency and comprehension.

Feelings of anxiety and frustration arise when students are confronted with reading comprehension assignments that exceed their level of ability. Gambrell et al. (1996) believed in order to increase students’ attitudes and self-perceptions of themselves as readers, the Explicit Systematic Direct Instruction (ESDI) teaching strategy must be utilized. ESDI provides a clear and defined instructional vehicle to help students understand both narrative and expository text. Succeeding at reading at a young age can help promote a positive learning experience and will help increase students’ ability to advance in knowledge, for reading is a lifelong skill in which students carry with them throughout their entire lives. For students who may struggle with reading, particularly ELLs/D, learning the skills necessary to read fluently can be even greater.
With effective teaching programs, curriculums, interventions and strategies, students’ with difficulties can make strides towards achievement in reading.

**Problem Statement**

After teaching six years in the public school system, it became apparent that a vast majority of the curriculum and reading programs been used are ineffective and failing numerous ELLs/D. According to the California Department of Education Annual Yearly Progress (AYP) results, the No Child Left Behind (NCLB) Act of 2001 was originally proposed by President George Bush in 2001 to increase school performance and meet the needs of all students. President Bush signed this Act into Congress on January 8, 2002 (United States Department of Education, 2010). The intention of NCLB is that all children at low performing schools will reach their full academic potential through improved programs, thus leading to all schools meeting state achievement standards (United States Department of Education, 2010). To ensure the success of all students, NCLB has established high standards along with measurable goals all schools must adhere to. They are:

1. High quality curriculum and assessments that meet the educational needs of low achieving students in our nation’s highest poverty schools.

2. Closing the achievement gap between high and low performing students especially the gaps between minority and non-minority and disadvantaged and non-disadvantaged students.

3. Providing students an enhanced and accelerated educational program that increases the amount of quality instructional time in the given school day (United States Department of Education, 2010).
Teachers are expected to teach specified standards using pre-determined pacing guides, which allow minimal room for personalizing based on individual student academic need and performance. Many ELLs/D struggle to keep pace with their peers and fall further behind, creating a wider achievement gap. Sustaining motivation for ELLs/D can be challenging for even the most well-meaning teacher. In order to support these students’ individual needs and ensure they are participating in a meaningful way in the core curriculum, instructional methods that are research based should be employed in a clear and direct fashion. Therefore, there is a need to analyze the academic and motivational impact of California Gateways and Lexia Reading on English Language Learners with disabilities.

According to the 2011/2012 school year results of the School Accountability Report Card (SARC), Elementary School 46 (ES 46) in Central California had 638 students enrolled and the average student to teacher ratio was 27 students per every one teacher; which is greater than the state student to teacher ratio of 23 students per every one teacher (SARC, 2012). During the same year, Elementary School 46 (ES 46) was comprised up of the following demographics: 0.5% Black or African American, 0% American Indian or Alaska Native, 0.3% Asian, 1.9% Filipino, 0.2% Native Hawaiian/Pacific Islander, 20.2%, 75.2% Hispanic or Latino, and 1.7% two or more races. In addition, 56.7% were English Language Learners, 11.2% were Students with Disabilities, and 81.8% were Socioeconomically Disadvantaged (SARC 2012).

The high number of students assigned to one teacher in the classroom can make it difficult for teachers to scaffold pre-existing curriculum to ELLs/D along with providing students the necessary number of opportunities to better develop their reading abilities. Without ample time during the day for additional support, these ELLs/D fall behind even more academically; which can lead to a decreased level of motivation to partake in class-wide reading
comprehension discussions for fear of responding to questions incorrectly. The disappointment in students’ expressions when they are aware they are academically regressing was disheartening. The fact that these students aren’t skilled enough to respond to questions as proficiently as their intellectually advantaged peers was extremely alarming. In observing these students in grade level Language Arts curriculum, it became apparent that as questions from the teacher became more challenging, responses such as “I don’t know,” or constant shrugging of students’ shoulders became evident. During the same time, these students sat lower in their chairs perhaps ashamed they were not able to determine the appropriate and high level response expected by their teacher.

Pearson (1985) states no text is ever fully explicit and no text ever specifies all the relationships among events, motivation of characters, and nuances of tone and style that every author hopes readers will infer as they read. The inability of many ELLs/D disabilities can be impacted if the student lacks background knowledge on the text, vocabulary development and effective reading strategies (Pearson, 1985). Due to texts not including all information needed for comprehension, students face challenges with understanding what they read. In general education classroom settings with common core and grade level curriculum implemented, the potential challenges ELLs/D disabilities have can overwhelm not only their ability, but also the desire and motivation to comprehend text to their understanding.

Payne & Manning (1992) conducted a study to determine the effects of comprehension monitoring strategies on reading comprehension, strategy use and attitude. Students in both the treatment and control groups were administered the Index of Reading Awareness prior to and again following the completion of treatment. Students were asked to assess their awareness about reading in three areas: evaluation on task difficulty and one’s own abilities, planning to
reach a goal, and monitoring progress towards the goal (Payne et al., 1992). Students in the
treatment group showed significance growth in all three areas of the Index of Reading
Awareness. Students in the controlled group did not display such noticeable growth Payne &
Manning (1992). The significance of information gathered from this evaluation helped
determine the personal attitude towards reading comprehension and its correlation with improved
reading comprehension test scores.

ELLs/D are frequently individuals with undesirable attitudes towards reading
comprehension due to little gains in academic skills and achievement (Henk & Melnick, 1995).
The Elementary Reading Attitude Survey (ERAS), developed by McKenna and Kear (1990), was
used to measure elementary students’ attitudes toward both academic and recreational forms of
reading (Henk & Melnick, 1995). ERAS was used to determine the correlation between reading
habits and achievement levels. While studies in the area of increased student motivation and
attitude towards reading comprehension have been explored for various reading intervention
programs, very little is known about the effectiveness on student achievement and motivation in
reading fluency and comprehension of California Gateways in conjunction with Lexia Learning
Systems Lexia Reading. Lexia Reading is a technology-based ESDI personalized learning
program that accelerates the reading skill development for students below grade level. A
detailed explanation of the different components of Lexia Reading is defined in the
Materials/Instruments section.

It is imperative that instead of permitting students who are struggling with reading to hide
behind their desks, they receive the intervention and support they are required by state
regulations in hopes of increasing their achievement and motivation in this subject.
Purpose of Study

This research aimed to increase participants’ achievement in reading comprehension and their motivation to read using the California Gateways Language Arts curriculum taught through Explicit Systematic Direct Instruction teaching strategies along with the reading program, Lexia Reading. California Gateways is an intensive Language Arts curriculum program specifically designed for English Learners who are performing academically two or more years below grade level. This program features daily instructional routines in Fluency, Word Decoding, Comprehension and Writing and Speaking Strategies. Lexia Reading is a technology-based ESDI personalized learning program that accelerates the reading skill development for students who are ELLs/D disabilities, on level and advanced levels (Lexia Learning Systems, 2012). Lexia Reading provides individualized learning opportunities and provides the teacher with performance data to illustrate student progress over time. By combining both California Gateways instruction with Lexia Reading intervention, the researcher gained a better understanding of how the two curricula can impact ELLs/D in the classroom.

Research Questions

With these problems in mind, the following three research questions are being proposed:

1. Does California Gateways and Lexia Reading impact the reading fluency of English Language Learners with disabilities?

2. Does California Gateways and Lexia Reading impact the reading comprehension of English Language Learners with disabilities?

3. Does California Gateways and Lexia Reading impact the motivation to read for English Language Learners with disabilities?
In each case, an explanation will be given/cited to support the basis of the given research questions.

**Theoretical Model**

Direct Instruction (DI) was the cornerstone of Engelmann’s theoretical model of instruction (Magliaro, Lockee, & Burton, 2005). Engelmann believed at-risk students would benefit greater from academic instruction if they are taught using familiar language, new concepts are introduced one at a time, and ample examples of each new concept are provided (Crawford, Engelmann, & Engelmann, 2012). DI models of instruction incorporate these basic principles: language is familiar to students, ample examples of each new concept being taught is provided, newly taught concept is integrated into applications which are familiar to the students, and finally the instructional design is based upon logical analysis (Crawford et al., 2012). Engelmann’s theory directly impacts the practice of instruction and how DI curriculum programs were designed and implemented in the classroom. His theory of instruction contextualizes the key elements of the explicit and systematic direct instruction used in the California Gateways curriculum. California Gateways provides various levels to meet students’ distinctly different needs. At ES 46, levels 1B/B and level 2 are available. Level 1A is designed for English Language Learner students at Beginning Language Proficiency and Level 1B is designed Struggling Readers with Language Proficiency (California Gateways, 2010). For the purpose of this study, level 1B is of particular importance.

The key elements of California Gateways are: (a) Differentiated Placement, (b) Accelerated Learning, (c) Proven Instructional Routines, (d) Explicit Skill Instruction, (e) Intrinsic Motivation, and (f) Ongoing Professional Development. These elements were designed to accelerate the reading and academic achievement for students in grades 4-8 (Steck-Vaughn,
2010), thus allowing students to have the opportunity to access curriculum at their independent level.

Engelmann (2012) believed that an effective DI model arranges students so that they are grouped at the same performance level. This way, those who require more practice are not slowing faster students, and slower students can progress through the lesson sequences at a slower pace (Crawford et al., 2012). The instructional sequences of all California Gateways lessons are repetitious and scripted, eliminating the surprise factor of not knowing what will happen next. Each daily lesson is divided into five instructional steps: (a) Making Connections, (b) Developing Vocabulary, (c) Building Word Skills, (d) Reading for Fluency and Understanding, and (e) Writing with Purpose. All instructional steps are integrated with the rest of the lesson, which maximizes the potential to make connections throughout the lesson; thus solidifying student learning and achievement (Steck-Vaughn, 2010). Previously taught skills are incorporated across chapters signifying the imperativeness of the skill to be mastered by students.

Engelmann’s research also concluded that in order for students to succeed, they must be tested and placed into the DI curriculum where they belong (Crawford, Engelmann, & Engelmann, 2012). In order to determine the appropriate placements of at-risk students into the California Gateways curriculum program, all students at ES 46 were administered a Gateways Placement test which is provided within the instructional kit. This placement test was one of the main indicators whether or not students qualified to receive their academic instruction via a DI model. Based upon individual student placement test results, as well as other factors that were taken into careful consideration such as the California English Language Development Test (CELDT) levels, appropriate leveling was then determined. The theory of Direct Instruction,
which Engelmann describes as an effective solution to closing the gap on student achievement, is what California Gateways is based upon. Steck-Vaughn (2010) utilized Engelmann’s theory as the driving force of this ESDI curriculum to close the gap of student achievement.

The expectancy value theory developed by Wigfield and Eccles (2000) indicates that student motivation and achievement are inextricably intertwined. Simply stated, students that believe they are competent tend to perform at a level above and beyond expectations on academic tasks. Their expectations influence performance, persistence, and effort put forth into a given activity (Wigfield and Eccles, 2000). In essence, students have the cognitive ability to influence their own independent motivation. Wigfield and Eccles (2006) identified and defined four motivational components of task value: (a) Attainment Value, (b) Intrinsic Value, (c) Utility Value, and (d) Cost.

Wigfield and Eccles (2000), define attainment value as the importance students place on the value of doing well on a given task. Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean (2006) support the above motivational components. Wigfield et al., (2006) and Wigfield and Eccles (2000) stated intrinsic value is the enjoyment the student receives from performing the activity and utility value refers to how activities or tasks relate to the individuals current and future goals. An example provided by Wigfield et al., (2006) is students who enrolled themselves in classes they are not particularly fond of, but are required to take in order to pursue other interests or perhaps to please family or friends. Wigfield and Eccles (2000) and Wigfield et al., (2006) define cost value as the negative aspects of engagement in task. Negative aspects include the fear and anxiety of the possibility of failure at task and the quantity of effort required to succeed in task. Another negative is how engaging in one task such as completing a homework assignment can limit access to other activities such as spending time with family, and
calling friends (Wigfield and Eccles, 2000). Battle and Wigfield (2003) concluded that the perceived monetary costs of attending graduate school had an extremely negative impact on students. This led to a negative predictor of college students’ intent to enroll in graduate school.

The above-mentioned values were argued by Eccles (2012) as playing a determining factor in the perceived value of schoolwork for students. As task values of activities and tasks increase, and students are able to provide precise responses, achievement improves as does motivation and persistence to task completion. (Wigfield & Eccles, 2000).

The expectancy-value theory of achievement motivation is evident throughout the computer-based program, Lexia Reading, which is the intervention to this study. Students expect to perform well, expect to have high levels of ability beliefs, and expect to receive recognition for their completed assignment. For this reason, Lexia Reading supports Eccles and Wigfield’s expectancy value theory of achievement motivation. Expectancies and values are presumed to be influenced by task-specific beliefs such as student’ perceived difficulty of tasks, ability beliefs, goals’ of individuals, self-scheme, and affective memories (Eccles & Wigfield, 2000). The colorful, cartoon-like characters, animated voices and sounds were developed to make interacting with the reading program motivational and inspiring for the student. As students successfully complete activities within each skill set, their progression is charted and displayed on a colorful bar graph, which is available to the student immediately upon logging into their personal Lexia account. Proper and explicitly taught instruction and student motivation are the key factors of this study. To what degree these two factors have will determine the effectiveness of California Gateways and Lexia Reading on English Language Learners.
Summary

To aid struggling readers on their reading comprehension skills, many require additional support and intervention to access the curriculum. ESDI is imperative to students’ success and motivation in reading comprehension (Stockard, 2011). California Gateways and Lexia Reading encompass all of the necessary components to ensure student success. This study examined the impact of California Gateways and Lexia Reading on students’ achievement and motivation with respect to reading fluency and reading comprehension.

Definition of Terms

**Annual Performance Index:** A number ranging from a low 200 to a high 1,000 which reflects a school’s student group performance level. This number is based on the results of statewide assessments.

**Annual Yearly Progress:** A measurement defined by the No Child Left Behind Act that allows the United States Department of Education to verify how public schools are performing academically according to results on standardized assessments.

**California English Language Development Test:** A formal assessment that measures students’ proficiency of English standards. This test is administered to any student in kindergarten through 12th grade who have a home language other than English.

**California Gateways:** A research based intensive Language Arts core replacement curriculum program specifically developed for struggling readers and English Language Learners in 4th-12th grade.

**Comprehension Monitoring Strategy:** The ability of a reader to be aware if the text they are reading is making sense or not.
**Curriculum Based Measurement:** A researched-based assessment which focuses on short tests, called probes, to ascertain student achievement on basic skills in reading, math, writing, and/or spelling.

**English Language Learners:** Students whose primary language is one other than English. For the purpose of this study, the term ELLs is used for students whose primary language is Spanish and secondary language is English.

**Explicit Systematic Direct Instruction:** Scripted curriculum that is specifically designed to accelerate students’ learning with the most effective wording. New materials in lessons are controlled to allow students to master the contents presented to them by the end of each lesson (Stockard, 2011).

**Individualized Education Program:** Mandated by the Individuals with Disabilities Educational Act. A document that describes the student’s learning style, what services the student receives, and what teachers and staff can do to best support the individual needs most effectively.

**Instructional Assistant:** A teacher’s assistant. For this study, the Instructional Assistant assisted with English Language Learners with disabilities.

**Interobserver:** Someone to enhance the believability and increase validity of data by observing and administering a certain percentage of assessments to participants.

**Lexia Reading:** A research and technology-based, personalized, explicit, systematic program, which aligns to the Common Core State Standards and focuses on the foundational reading skills.

**Maze Passage Fluency:** Timed measures that assess students’ proficiency in reading comprehension.
**Motivation to Read Profile:** An instrument designed to measure students’ self-concept of themselves as readers and the value they place on reading.

**Multiple Baseline Design:** A form of research involving measurement of multiple people before, during, and after intervention.

**National Center for Education Statistics:** The part of the United States Department of Education’s Institute of Education Sciences that collects, analyzes, and publishes statistics on education information in the United States.

**Oral Reading Fluency:** Timed measures that assess students’ proficiency in reading connected text.

**Pacing Guide:** A standardized format for long-ranging planning that groups learning objectives into units and designates a certain amount of days/time to be spent teaching each unit. Pacing guides are used for teaching the relevant curriculum before administering assessments (Rettig, McCullough, Santos & Watson, 2003).

**Percentage Exceeding the Median:** A calculation of percentage of data points exceeding the median of the baseline phase (Ma, 2006).

**Reading Comprehension:** The ability to read a variety of materials and have an understanding of the reading. Correspondingly, being able to remember what you read and effectively communicate what you have learned from the reading.

**Reading Fluency:** How accurately, automatically and expressively someone reads.

**Replacement Curriculum:** A curriculum designed to meet the individual needs of students who are below grade level while providing skills to increase student achievement.
**Resource Specialist:** Specially credentialed teachers who provide direct instruction in academic areas to students with disabilities on a one-to-one or small group basis either in the general education classroom or Resource room.

**Scaffolding:** Teacher uses material at student’s individual reading level. Whereby context presented is of interest to the student and simpler steps of the strategy are being used followed by more challenging steps. Students practice simpler steps and teacher models the more challenging steps (Hamman, Lusche & Reid, 2010).

**School Accountability Report Card:** A report created by the school to indicate to the public student achievement, test scores, teacher credentials, dropout rates, class sizes, resources, and additional information.

**Socioeconomically Disadvantaged:** Students’ whose parents do not have a high school diploma or students’ who qualify to participate in the federally funded free or reduced price meal program due to low family income.

**Students with Disabilities:** Students who have been identified as having a mild/moderate disability as identified by the Individuals with Disabilities Education Act (IDEA). The primary disabilities of the population of participants included in this study have been identified with a mild/moderate learning disability.

**Zone of Proximal Development:** The readability range in which students’ books should be chosen in order to achieve best possible progression in reading skill without experiencing frustration or anxiety.
CHAPTER 2

Literature Review

Introduction

Teachers are faced with the challenge of educating the world’s most diverse student body in the 21st century (McLeod, 1994, Sprangenberg-Urbaschat & Pritchard, 1994). This diverse group is comprised of students who vary in socioeconomic status, achievement levels, and cultural/linguistic backgrounds (Fletcher, Bos, & Johnson, 1999; Palls, Natriello, & McDill, 1989). The rapid increase of students who come from non-English speaking homes raises the question of whether or not instructional strategies for ELLs are meeting the needs of these students. This chapter reviews the research on the effectiveness of reading programs with a focus on Steck-Vaughn’s California Gateways and Lexia Learning Lexia Reading program. The review begins with research-based classroom strategies for effective reading comprehension instruction to increase academic achievement and to enhance affective dimensions of student behavior, with particular focus on students who are considered to be English Language Learners (ELLs) with Learning Disabilities (D). Subsequently, the review illuminated an overview of California Gateways and Lexia Reading including a description of the context that stimulated both program’s development as well as an examination of their particularly successful instructional components.

Reading Comprehension Strategies

Of the total population of children in the United States, 13% suffer from some nature of developmental disability (Center for Disease Control & Prevention, 2011) and 34% of all elementary school students are unable to read at grade level (Snyder & Dillow, 2010). This research indicated a generous percentage of students are missing essential fundamental building
blocks that are necessary for sufficient academic progress (Jensen, et al., 2011). Fortunately, there are instructional strategies for ELLs/D readers in reading programs that offer students effective instruments and intrinsic motivation to make the learning process one that is viewed by the authors as enjoyable and efficient (Fielding & Pearson, 1994). In this section, two instructional strategies known to successfully increase student reading achievement: Peer-Assisted Learning Strategies (PALS) and Explicit Systematic Direct Instruction (ESDI) will be reviewed.

**Peer Assisted Learning Strategies**

California Gateways relies heavily on structured student interaction to build fluency and comprehension. Peer Assisted Learning Strategies (PALS) research supports the underlying assumption of structured student peer interaction incorporated within the California Gateways program (Fuchs et al., 1997). To help ensure that the levels of proficiency ELLs/D readers are improving, many school districts are utilizing the Class Wide Peer Tutoring, (CWPT) strategy (Fuchs, Fuchs, Mathes, Simmons, 1997). CWPT is a cooperative learning method, a form of peer tutoring in which students in a classroom are placed in partner groups and work concurrently (Fuchs et al., 1997).

A more explicit form of CWPT is PALS. PALS is a reciprocal peer-tutoring strategy that can be adapted to a variety of grade levels (Sáenz, Fuchs, & Fuchs, 2005). There are five pedagogical reasons supporting the effectiveness of PALS for ELLs/D readers. The PALS strategy allows and emphasizes the following:

1. Students spend an ample period of time reading and discussing texts aloud.
2. Students are asked to recall events, summarize main ideas and make predictions.
3. Peer-tutoring pairs read at ability level.
4. Ongoing and consistent corrective feedback is given to allow student to alter responses.

5. Partners and/or teams are utilized to provide a positive affective climate (Sáenz et al., 2005).

Strategies such as these are important because during whole-group instruction, the amount of information teachers input into students’ minds is excessive. It is these same students who are then given minimal opportunities to produce comprehensible output or to verbally determine the meaning of such (Sáenz et al., 2005). At times, ELLs/D are unable to retain information as quickly as teachers are inserting it. ELLs/D readers require sufficient time throughout the lesson to collaborate amongst each other. Doing so allows them to negotiate meaning and determine the most accurate response based on their understanding.

Students who primarily speak Spanish can also benefit from a similar variety of strategies within the classroom to promote academic achievement in their reading comprehension skills. With these cooperative and peer interaction-learning strategies, ELLs/D, ELLs/non-ELLs and students with and without disabilities can have equivalent, impartial, and effective access to the curriculum.

**Explicit Systematic Direct Instruction**

Explicit Systematic Direct Instruction (ESDI) is another strategy that can work well with ELLs/D. According to the National Institute for Direct Instruction (NIFDI, 2011) the basic philosophy of ESDI can be defined in five distinct terms:

1. All children can be taught.

2. All children can improve academically and in terms of self-image.

3. All teachers can succeed if provided with adequate training and materials.
4. Low performers and disadvantaged learners must be taught at a faster rate than typically occurs if they are to catch up to their higher-performing peers.

5. All details of instruction must be controlled to minimize the chance of students’ misinterpreting the information being taught and to maximize the reinforcing of instruction (Jensen, Jordine & Wilson, 2011).

Research in cognitive psychology has confidently indicated that certain classroom strategies can increase the reading ability of students more than others. Specifically, improvements in reading ability and comprehension skills are evident when lessons are presented to students by means of DI (Stevens, Slavin, & Farnish, 1991). For example, students who were enrolled in a EDSI early literacy intervention program showed the greatest increase in student achievement as measured by the Dynamic Indicators of Basic Early Literacy Skills (DIBELS), when compared to students of the same age group who were receiving their education in a less structured curriculum program (Kamps, Abbott, Greenwood, Wills, Veerkamp, & Kaufman, 2008).

Affective Dimensions

It is virtually guaranteed that students who are skilled at comprehending texts are also knowledgeable and strategic readers (Pressley, 2000). However, for students who show difficulty in the area of comprehension, the task of comprehending challenging text requires motivation and not just cognition (Guthrie & Wigfield, 2000). By the time students have been designated as ELLs/D readers, they are already two or more grade levels below their current grade. Not only does this affect their performance in academics, it also can dramatically affect their motivation and attitudes towards reading comprehension. For that reason, it is important that strategies targeting ELLs/D readers also focus on factors such as motivation.
The Matthew Effect

Stanovich (2008) has conducted extensive research on language and reading disabilities and, based on his findings, borrowed the phrase “the Matthew Effect” from sociology. The Matthew Effect refers to the idea that in reading, as well as in other areas of life, the rich get richer and the poor get poorer (Stanovich, 2008). Students are at grade level in reading, will read more, have higher vocabulary, comprehend more and enjoy reading more (Stanovich, 2008). The ability to enjoy reading and find it easy-going leads to a greater motivation to continue reading (Walberg, Strykowski, Rovai & Hung, 1984; Walberg & Tsai, 1983). The idea behind the Matthew Effect results from the explanation that students who have advantageous early educational experiences are able to utilize new educational experiences more efficiently than those who are unable to access these experiences (Walberg & Tsai, 1983). For readers who are less accomplished however, the reading comprehension lessons can seem overwhelming and a decrease in student motivation can be detected (Anmarkrud & Braten, 2009).

Steck-Vaughn California Gateways

The No Child Left Behind (NCLB) Act of 2001, which was signed into Congress by President George Bush on January 8, 2002, was intended to increase school performance and meet the needs of ELLs/D students, including ELs and students with special needs (United States Department of Education, 2010). The objective of NCLB is that all children at low performing schools will reach their full academic potential through improved programs, thus leading to all schools meeting state achievement standards (United States Department of Education, 2010). The law states that schools and teachers must implement teaching methods that have been proven to work. In other words, they must be effective and research-based teaching methods.

California is determined to ensure that all students in California schools receive
instruction that is current, research based and aligned with the criteria of the Reading/Language Arts for Framework California Public Schools (Scarcella, Rivera, Rivera, Beck, McKeown & Chiappe-Collins, 2011). Steck-Vaughn California Gateways was developed based upon what scientific research identifies as three major elements of effective reading instruction:

1. Using effective instructional approaches.
2. Teaching content that is important for student success in English Language Arts.
3. Utilizing assessments effectively to guide instruction (Scarcella et al., 2011).

California Gateways is a research based intensive Language Arts core replacement curriculum program specifically developed for struggling readers and ELLs in 4th-12th grade (Scarcella et al., 2011). The program supports all major aspects of what a successful Explicit Systematic Direct Instruction curriculum should consist of. California Gateways’ Decodable Reader provides students with a variety of scaffolded practices that solidify phonics skills and gradually increases text difficulty level to improve fluency (Scarcella et al., 2011). Research completed by Chiappe-Collins (2010) discovered that exercises in sight word memorization do not address decoding problems and that students require well-structured and transparent instruction in decoding awareness and phonological awareness. More specifically for ELLs who have underdeveloped phonological awareness, decoding and reading unfamiliar words are even more challenging (Rivera & Rivera, 2010). California Gateways scripted lesson plans include a variety of intensive practices for improving decoding skills. Based on curriculum content published in Reading/Language Arts Frameworks for California Public Schools, the following four skills are evidenced within each California Gateways lesson: (a) Phonemic Awareness, (b) Phonological Awareness, (c) Phonics, and (d) Decoding and Word Recognition (Attack) Skills (Scarcella, et al., 2010). Students who face underdeveloped phonological awareness require
direct instruction teaching strategies (Rivera & Rivera, 2010). These strategies accommodate ELLs and not only do they assist in increasing fluency and comprehension, but can lead to increasing motivation to read as well. According to Scarcella et al. (2011), these scaffolded practices can be the determining factor required by ELLs to “crack the code” to phonics skills mastery. By utilizing all provided materials and supplementary materials available via video and audio discs, students will have access to the curriculum.

The National Institute for Direct Instruction (NIFDI) reported that schools that implement the direct instruction teaching method showed significant increases in student achievement (NIFDI, 2002). A study piloted by NIFDI in Baltimore, Maryland demonstrated the effectiveness of direct instruction implementation. The study was introduced in 1998, when direct instruction was first put into action in third, fourth, fifth, and sixth grade classrooms, and was terminated in 2011. Maryland State Assessment results demonstrated that during the thirteen year implementation of the direct instruction teaching model, extraordinary gains in student achievement were evident. In 1998 50% of third graders were proficient in reading and in 2011 51% were proficient. In 1998 65% of fourth graders were proficient in reading and in 2011 73% were proficient. In 1998 48% of fifth graders were proficient in reading and in 2011 63% were proficient. Lastly, in 1998 38% of sixth graders were proficient in reading and in 2011 58% were proficient (NIFDI, 2012).

Programs such as California Gateways would greatly benefit the reading fluency and reading comprehension achievement of ELLs/D in schools with demographics comparable to that of ES 46. The Department of Basic Education (2011) FOUND that from 1998-2010 the vast majority of learners were attending schools in which the language of teaching and learning was different from their primary language. As previously mentioned, research has indicated that
reading programs which incorporate peer-assisted learning strategies (PALS) and Explicit Systematic Direct Instruction (ESDI) can increase the achievement in reading comprehension for ELLs and students with disabilities. California Gateways includes both of these elements. Research as summarized by a Steck-Vaughn California Gateways District Case Study (2010) suggests that California Gateways does have a significant impact on student achievement and affect in reading comprehension. Specifically, even one Unit of instruction could double the number of students performing at basic or above basic levels on the English Language Arts portion of the California State Test (Scarcella et al., 2011). The explicit and systematic designs of each lesson along with the intrinsic motivational approaches make California Gateways an ideal program for ELLs/D readers.

**Lexia Learning Systems Lexia Reading**

Developed in 1984 by Bob Lemire, the Lexia Learning Systems program is a personalized technology-based program aligned to the Common Core State Standards. Lexia Learning Systems focuses on foundational reading skills, led through an explicit systematic instructional method as determined by the National Reading Panel.

As students interact with Lexia Reading on a personal computer, the program predicts students’ end-of-the-year performance level and provides teachers with data-driven action plans to help differentiate instruction. This program is targeted at students who are at grade level, below grade level, struggling readers, English Language Learners, and students with disabilities. A study in 2011 compared Group Reading Assessment and Diagnostic Evaluation (GRADE) standard scores in Kindergarten classes in a rural Texas school district (Macaruso, P., & Rodman, A., 2011). Results of this study provided evidence that students who used the Lexia Reading program in addition to core reading instruction demonstrated greater gains than a
control group in phonological awareness, word reading, and overall reading (Macaruso, P., & Rodman, A., 2011). Simply stated in the Bilingual Research Journal, Lexia Reading has been proven to be effective in supporting English Language Learners in acquiring foundational literacy skills (Macaruso, P., & Rodman, A., 2009). Another study by Macaruso, P., & Rodman, A., (2011) tracked the performance of sixth and seventh grade students with disabilities in a remedial reading class in a Utah school district. Students in the Lexia Reading’s Strategies for Older Students group made significant gains in their word attack abilities (Macaruso, P., & Rodman, A., 2009). Students in both the Lexia Reading group and control group were administered the Woodcock-Johnson® III Tests of Achievement. Assessment results found that students in Lexia reading groups demonstrated a higher level of decoding, reading sight words, and recognizing written words (Macaruso, P., & Rodman, A., 2009).

Lexia was designed to be a supplemental component to any reading curriculum (Lexia Learning Systems, 2010), aimed at enhancing student attitudes and improving foundational reading skills. Lexia was developed to provide teachers with data-driven action plans to help differentiate instruction to students of all reading levels (Lexia Learning Systems, 2010). By personalizing each student’s individual program, Lexia Reading strives to accommodate the needs of all learners.

Each student is assigned a unique username and password inaccessible to fellow students. Teachers explicitly and directly teach procedures on how to log onto program. Students are automatically placed based on a pre-assessment in a level equivalent to their grade placement and work independently on developing their foundational reading skills (Lexia Learning Systems, 2010). This program also includes complimentary school-to-home access where students are able to continue developing their reading skills in the comfort of their own home.
Students work at their own pace and when additional intervention or support is needed, their teacher will be notified via reports. To develop automaticity in their newly acquired skills, Lexia Skill Builder activities (Lexia Learning Systems, 2010) are made available via the teacher login portal at www.mylexia.com. Teachers also have the ability to print certificates for completion of skill levels.

Student proficiency is measured by Lexia’s Assessment Without Testing technology (Lexia Learning Systems, 2010). Students are not required to take additional assessments to test their progress, which allows students to not have to stop the flow of education to take an assessment. Lexia is available through various easily accessible outlets via a web browser at www.lexia.com and via the free myLexia application available on the iPhone and iPad (Lexia Learning Systems, 2010).

Summary

This chapter reviewed instructional strategies aimed at increasing the academic achievement in and motivation for reading comprehension in ELLs/D readers. Overall, the strategies that were suggested to be effective are peer-assisted learning strategies, ESDI, and intrinsic motivation, all of which are embedded within the within the Steck-Vaughn California Gateways reading program. Lexia Reading, the computer-based reading intervention program, focuses on strengthening student’s language proficiency levels through skill building activities.
CHAPTER 3
Methodology

Introduction

The purpose of this study was to analyze the effectiveness of California Gateways and Lexia Reading on English Language Learners with Mild/Moderate disabilities’ (ELLs/D) achievement and motivation in reading. An action research plan with a single subject experimental design was generated to determine the usefulness of California Gateways and Lexia Reading on ELLs/D. A multiple baseline design model approach was employed using quantitative and qualitative data to track students reading comprehension skills and affect. A multiple baseline design single-case design was chosen for this study because for its simplicity and its flexibility of design (Kennedy, 2005).

Action research, as defined by Mills (2007), is “the systematic inquiry conducted by teacher, researcher, principals, school counselors, or other stakeholders in the teaching and learning environment to gather information about how their particular schools operate, how they teach, and how well their students learn” (p. 5). An action research approach was chosen to evaluate the simultaneous effectiveness of two reading intervention programs on students’ academic and motivational achievement in reading. The action research method created opportunities for teachers and other adults to improve the lives of children, and to learn about effective teaching techniques (p. 8). As a Resource Specialist who is committed to asking questions, reflecting on practices, and improving the curriculum to best meet the needs of ELLs/D students, this action research will allow the opportunity to address various concerns regarding student achievement and motivation in reading. This research was designed to
determine if California Gateways and Lexia Reading will help to close the achievement gap and motivation in reading for ELLs/D.

Practical classroom action research is specifically designed for a teacher/researcher, or a team of educators, to use to study their own local practice. This type of research addresses specific and generally narrow problems within a classroom or school for the purpose of solving those problems and it yields a plan of action for educational improvement. In addition to addressing issues directly related to student learning, practical classroom action research also focuses on an ongoing cycle of teacher development by empowering teachers to design, conduct, and interpret their own research with a commitment to professional development focused on student learning (Creswell, 2012). At the conclusion of this research, the researcher determined the effectiveness of two Explicit Systematic Direct Instruction (ESDI) programs being taught concurrently: California Gateways and Lexia Reading on students who are English Language Learners (ELLs) with disabilities.

Setting

The elementary school used in this study was located in a rural area off the California central coast. Elementary School 46 ES 46 is located in the middle of a diverse town where most students come from socioeconomically disadvantaged families. Many families are immigrants from Mexico; parents work as field laborers and large families share homes. ES 46 is located in the middle of a diverse town where most students come from socioeconomically disadvantaged families. Serving students from kindergarten through sixth grade, the school is compiled of 95 kindergarteners, 96 first graders, 110 second graders, 94 third graders, 75 fourth graders, 92 fifth graders, and 77 sixth graders. The school is comprised of a larger percentage of males (55%) to females (45%) (SARC, 2012).
As a direct result of No Child Left Behind (NCLB) schools were mandated to take a closer look at the achievement scores of students and offer the lower performing students additional support in the classroom. Towards the end of the 2012/2013 school year, all fourth, fifth, and sixth grade students at ES 46 completed a placement examination for California Gateways, a Language Arts core replacement curriculum. Results of the California Gateways Placement Test verified that 42% of all fourth graders, 15% of all fifth graders, and 0.7% of all sixth graders including ELLs/D, non-ELLS, and non-D peers are eligible to receive their Language Arts instruction through California Gateways. Students who were identified for requiring intensive interventions were then placed into one of the three appropriate program levels:

1. Level 1A for English Learner students at Beginning Language Proficiency.
2. Level 1B Struggling Readers with Language Proficiency.
3. Level 2 Early Intermediate through Advanced Language Proficiency (California Gateways, 2010).

Level 1A and 1B lessons are compiled from first and second grade California standards. These levels provide nonreaders the tools required to decode and comprehend. Level 2 addresses standards at the third grade level. It should be noted that the California Gateways program also includes levels 3 and 4; however, at the site of the research neither of these levels were taught nor offered due to grade levels of students. All levels consist of direct instruction, consistent routines, and clearly modeled activities (Scarcella el al., 2010). This unique environment creates unlimited opportunities for students to share ideas and receive prompt feedback from the teacher. California Gateways also incorporates tools for students to track their
personal progress, motivating students to take an active role in their learning experience (Scarcella et al., 2010).

**Participants**

Six participants, from the fourteen students available, were randomly chosen from a Language Arts intervention class at ES 46 based on ELL identification. Along with their ELL eligibility, participants had previously been diagnosed with a Learning Disability (D), which made them eligible to receive special education services in the public school setting. These individuals also received their Language Arts curriculum through the California Gateways program. For the purpose of this study, participants were given a pseudonym to protect their privacy and rights.

To determine each participant’s individual reading level, a Zone of Proximal Development (ZPD) was verified using Accelerated Reader Standardized Test for the Assessment of Reading (STAR) Test (Paul & Paul, 2013). The Accelerated Reader STAR Test is a computer-adaptive, norm-references assessment that calculates student reading comprehension in grades 1-12. This test accommodates students who have at least a 100-word reading vocabulary. Similar to the Maze Passage Fluency probe, participants were measured on their ability to read passages and fill in missing words from a set of pre-determined options (Ross, Nunnery, & Goldfeder, 2004). As participants responded to items, questions were continuously adjusted based on responses. If the participant’s response was correct, the difficulty level was increased. Conversely, if the participant’s response was incorrect, the difficulty level was decreased (Renaissance Learning, 2013). Results of the STAR Test indicated each participant’s ZPD.
ZPD is the zone which indicates the readability range in which participants’ books should be chosen in order to achieve best possible progression in reading skill without experiencing frustration or anxiety. For example: If a participant’s ZPD grade level score is between 1.2–2.2 they should select books within the 1st grade, 2nd month through the 2nd grade, 2nd month reading level). Books within this range are determined to be between what the participant can read independently and what they can complete with adult assistance without significant feelings of frustration or anxiety (Paul & Paul, 2013). After three data collection sessions during baseline, it was determined that one Participant (Eduardo) did not meet the eligibility requirements for this study, as his baseline skills were too advanced for this study therefore, he was excluded. Eduardo was able to read up to 101 correct words per minute according to his ORF results, and provided up to 28 correct responses according to his MPF results. Eduardo continued to receive reading intervention as designated by his Individualized Education Program.

A description of the five participants follows.

**Participant 1.** Carlos was ten years of age at the time of the study. He has been identified as an ELL student and qualifies to receive special education services under the Speech and Language Impairment disability. Carlos is often timid and quiet and is hesitant to answer questions in front of the class for fear of responding incorrectly. He enjoys playing dodge ball during recess and is frequently is very helpful in the classroom. Academically, he struggles in all areas of language arts and mathematics, but puts forth much effort in learning new skills and strategies. Carlos’s ZPD was 0.9-1.9.

**Participant 2.** Martha was nine years of age at the time of the study. She has been identified as an ELL student and qualifies to receive special education services under the Speech and Language Impairment disability. Martha enjoys puzzles, drawing, and immersing herself
into a variety of books. Academically, she is extremely low in decoding, blending, fluency and comprehension. Martha’s ZPD was 0.7-1.7.

**Participant 3.** Alejandro was ten years of age at the time of the study. He has been identified as an ELL student and qualifies to receive special education services under the Speech and Language Impairment disability. Alejandro enjoys reading books; however, he prefers to choose books too advanced for independent reading level, which often leads to an increase in frustration. Alejandro is social with his peers, and based off observation in the social setting, he frequently leads his peers in the sport or activity he is involved in. Academically, Alejandro’s ability to blend sounds to words improves the more he reads at his independent reading level. Alejandro’s ZPD was 1.6-2.6.

**Participant 4.** Anthony was nine years of age at the time of the study. He has been identified as an ELL student and qualifies to receive special education services under the Speech and Language Impairment disability. Anthony is extremely quiet and seldom responds to academic questions directed to him. Based upon observations and conversations with Anthony, it appears he has little interest in reading, and he seldom reads at home. Typically, Anthony keeps to himself during social settings and rarely engages with his peers. Academically, Anthony is performing low in Language Arts and struggles additionally with communication skills. Anthony’s ZPD was 1.0-2.0.

**Participant 5.** Gael was eleven years at the time of the study. He has been identified as an ELL student and qualifies to receive special education services under the Speech and Language Impairment disability. Gael is very quiet and has a difficult time expressing himself. He enjoys drawing, reading, and playing soccer with his friends. Academically, Gael is making
steady progress in reading and put forth effort to increase his reading capability. Gael’s ZPD was 1.3-2.3.

**Procedures**

A detailed set of procedures follows to explain the step-by-step approach used to guide the research. Included in the procedures are consent and assent, materials and instruments used to collect data, as well as a Motivation to Read Profile. A description of the setting, participants, interventions, CBM assessments, and Motivation to Read Profile follow. Dependent and independent variable were also explained.

**Consent and Assent.** Consent for this research was received from the Committee for the Protection of Human Subjects (CPHS) at California State University Monterey Bay. Participating student consent for this study was obtained by sending home a written notice and consent form for parental permission for their child to participate in this research study. The researcher provided appropriate contact information to parents for further information as needed. Notice and consent forms were provided in both English and Spanish. The researcher also obtained assents from participants of this study who wished to contribute in this study. The assent was written in child-friendly language and was explained to the participant verbally as well. Participants were given an explanation as to what will be taking place during the research period as well as who was to be work alongside them. Participants were made aware that if they choose to do so, they could leave the research at any time without any type of penalty or grade decrease.

Following the retrieval and agreement of all consent and assent forms, participants were assessed individually to obtain baseline data. Once baseline data was collected, participants received their Language Arts instruction through both California Gateways instruction and Lexia
Reading for the intervention phase. After the intervention phase was completed and a final CBM probe was administered, participants no longer took part in any of the research actions.

**Materials/Instruments**

Several materials were required throughout the duration of this research. California Gateways and Lexia Reading materials acted as the instruction and intervention, while Curriculum Based Measurement probes acted as the data collection. Additional materials were red tickets as rewards for completing probes, as well as a Motivation to Read Profile, which participants completed independently to measure their interest and value they placed in reading.

**California Gateways.** The California Gateways (Steck-Vaughn, 2010) materials used for this study were Unit 1 and Unit 2 of the Level 1B kit. Each unit consisted of three chapters, each containing worksheets, timed reading passages, narrative stories, and expository texts. Each chapter consisted of six lessons, divided each into five skills: (a) Making Connections, (b) Developing Vocabulary, (c) Building Word Skills, (d) Reading for Fluency and Understanding, and (e) Writing with Purpose (Steck-Vaughn, 2010).

Student worksheets were located within the Practice Book and corresponded with the lesson completed during each session. To allow participants ample time to apply new reading skills and strategies, fluency passages were present in each lesson. Along with the fluency passage, participants were also held accountable to track the number of correct words per minute read with a partner and document the results on the Fluency Progress Chart. To develop participants’ reading comprehension skills, other supportive materials were used daily to assist participants in acquiring new skills such as a Writers Notebook: an Anthology book compiled of narrative stories and expository texts, and a Decodable Reader which included short reading passages that correlated to the focus sound of the lesson (See Appendix A).
Lexia Reading. Materials that were used for this intervention were the student-accessible computer, noise-canceling headphones, and the Lexia Reading computer based program that, depending on the participants’ individual level, consists of lessons in the following areas: (a) Decoding, (b) Fluency, (c) Vocabulary, (d) Listening, and (e) Reading Comprehension, etc (Lexia Learning Systems, 2013). The online component, http://www.mylexia.com, allowed the researcher to log-in and view information about individual participant performance at any point in time (See Appendix B).

Assessment

To evaluate the effectiveness of California Gateways and Lexia Reading of participants’ reading fluency, reading comprehension, and motivation towards reading, three distinctive assessments were determined to be valuable. Curriculum Based Measurement probes were utilized to determine the effectiveness of both programs on participants’ reading fluency and comprehension. The Motivation to Read Profile was deemed appropriate to evaluate participants’ enthusiasm regarding reading.

Curriculum Based Measurement. The CBM probes used in this study can be found on at http://www.aimsweb.com/. Oral Reading Fluency (ORF) probes and Maze Passage Fluency (MPF) probes, for reading comprehension, were used. ORF probes assessed participants’ proficiency in reading passages aloud (See Appendix C). MPF probes assessed participants’ growth in basic reading comprehension. Participants were provided a reading passage and were given three minutes to read the passage (See Appendix D). Both ORF and MPF probes were at the participants’ independent and individual reading levels.

Administration and scoring with a list of materials for each of the CBM probes were completed in accordance with the Aims Web guidelines. For a further explanation of these
guidelines, see the *Oral Reading Fluency* and *Maze Passage Fluency* sections below. The researcher kept a detailed log of all participant’s fluency and comprehension scores as passages were read and documented all progress monitoring, which later were generated into line graphs. No score was recorded during a participant’s absence.

**Motivation to Read Profile.** To assess motivation towards reading, each participant completed a twenty-item Motivation to Read Profile (MRP) using a four-point response scale as well as pre- and post-intervention (See Appendix E). Gambrell et al., (1996) developed the MRP after determining the need for an instrument that would provide teachers with an efficient way to combine quantitative and qualitative approaches for assessing reading motivation in students. All profiles were presented to participants in the Resource classroom during individual sessions, with no other student present at the time. The researcher read aloud statement and answer choices, then allowed time for the participant to reply. The researcher used pseudonyms previously assigned to participants to protect their privacy. All information gathered from the pre and post-intervention MRP was analyzed to determine effectiveness of California Gateways instruction in combination with Lexia Reading intervention. All data were collected and at no time did participants or others have access to the Motivation to Read Profiles. For confidentiality purposes, student work and researcher documentation was locked in a filing cabinet at the end of each individual session.

The MRP measured students’ self-concept of themselves as readers and the value they placed on reading (Gambrell et al. (1996). The Self-Concepts as a Reader measure was composed of ten items, each consisting of a statement and multiple-choice responses. The Self-Concepts of a Reader section focused on how participants viewed themselves as readers and how they rated their own reading ability in comparison to peers. The Value of Reading measure was
composed of ten items, each containing a statement and multiple-choice responses. The value of reading items focused on the level of value participants placed on reading and their frequency of reading. Following the completion of the Motivation to Read Profiles, the researcher with the assistance of the interobserver scored all of the surveys. According to Gambrell, at al. (1996), the most positive response is assigned the highest score (4), while the least positive response is assigned the lowest score (1). Space was provided on the MRP Reading Survey Scoring Sheet to determine percentage scores on the entire Reading Survey as well as on the two subscales (Self-Concept as a Reader and Value of Reading). Additionally, space was provided below the percentage scores for the researcher or interobserver to document any observations during the administration of this survey.

Data Collection

Each participant received California Gateways instruction daily and Lexia Reading intervention for various length of days: Carlos was in baseline for 6 days; Martha for 9 days; Alejandro for 12 days; Anthony for 15 days; and Gael for 18 days. Carlos was in intervention for 18 days; Maria for 15 days; Alejandro for 12 days; Anthony for 9 days; and Gael for 6 days. Each participant was monitored using Aims Web CBM probes every Monday, Wednesday, and Friday and results were documented onto individual recording sheets.

Baseline. Following the ESDI teaching of California Gateways instruction and Lexia Reading intervention on the computer, baseline data were collected. Data were collected via Curriculum Based Measures (CBM) probes which consisted of two assessments: one to measure their proficiency in reading fluency using the Oral Reading Fluency (ORF) probe, and one to measure their basic reading comprehension abilities, using the Maze Passage Fluency (MPF) probes. The participants took the assessments individually every Monday, Wednesday, and
Friday in the Resource room. Each participant was monitored using Aims Web CBM probes in the same format as the ones used during the baseline data collection. The researcher scored assessments in private. Each participant was in baseline for different lengths of time due to the Multiple Baseline Design approach implemented in this study. The week following the end of the intervention, the five remaining participants were given a CBM probe post-test to determine the effectiveness of California Gateways instruction in combination with Lexia Reading intervention on their individual reading levels.

**Intervention.** Intervention data were collected using the MBD approach. Participants were assessed using Oral Reading Fluency and Maze Passage Fluency probes. As stated above, participants completed the assessments individually each Monday, Wednesday, and Friday in the Resource room. During the intervention, each participant received daily California Gateways instruction and thirty minutes of Lexia Reading intervention. Each participant received different lengths of intervention due to the multiple baseline design. The participants did not receive additional reading fluency or reading comprehension instruction outside of California Gateways and Lexia Reading during the period of intervention.

The researcher taught using an Explicit Systematic Direct Instruction (ESDI) teaching method for each of the participants which consisted of reviewing the previous reading lesson at the beginning of each session, presenting new information, modeling for all students, teaching a new lesson, as well as discussing the applicable worksheets and/or reading passages. Students then completed the worksheets either independently or in partners, depending on the instructions provided by the program and, if applicable, students shared responses with the group. The researcher provided guidance and immediate corrective feedback.
**Oral Reading Fluency.** Materials used for Oral Reading Fluency (ORF) data were collected using Aims Web probes, recording sheets to document student’s reading fluency, reading passage for students to read from, a pencil and a minute timer with start/stop buttons to time reading. Before administering the probe, the researcher explained to each participant individually that they have one minute to read the passage as fluently and as accurately as possible. The researcher also explained to the students that if they take longer than three seconds to decode a word, the word would be provided to the participant, and marked as incorrect on the recording sheet. After the student understood the directions and had no questions, the researcher started the timer and the participant began reading the passage for one minute (60 seconds). During this one minute, the researcher recorded all errors on the recording sheet. Incorrect responses include words that are added, substituted, omitted, and pronounced incorrectly where the meaning of the word is different from the intended meaning. After one minute, the timer went off and the participant stopped reading. To determine student’s Correct Words Per Minute (CWPM), the total number of errors recorded was subtracted from the total number of words read within the minute. Lastly, the researcher recorded this number onto the participants’ individual progress monitoring log.

**Maze Passage Fluency.** Materials used for the Maze Passage Fluency (MPF) probes were the recording sheets to documents participants’ responses, Maze reading passage for participants to read from, a pencil, and a minute timer with start/stop buttons. Before administering the probe, the researcher explained to the participants that they have three minutes to read the passage as fluently and accurately as possible. The first sentence of the passage is left unchanged. In the following sentence and every sentence from there on after, every seventh word had been replaced with three words in boldfaced type, separated by parenthesis and
commas. One of the three boldface typed words is the correct response. The participants then
determined which bold word best restored the meaning of that segment of the passage. After the
participants understood the directions and explanations, the researcher began the three-minute
time trial. During the time trial, the researcher monitored participant progress. The participants
continued circling the word from the three choices until time expired. Participants were scored
on the number of correct words circled. After participants completed the MPF, the researcher
tallied the total number of responses by the participants and subtracted the number of incorrect
responses. Finally, the researcher recorded this score onto the participants’ individual progress
monitoring log.

Data Analysis
All data collected from participants were scored, summarized and charted. The baseline
data demonstrated participants’ levels prior to the beginning of intervention. Baseline data were
compared to data collected throughout intervention to determine the academic impact of
California Gateways and Lexia Reading. The results of the Motivation to Read Profile validated
how students’ motivation and perceived enjoyment of reading was affected as a result of the
interventions. A secondary data analysis was used to verify the effectiveness of California
Gateways and Lexia Reader on participant’s fluency and comprehension.

Experimental Design
A single-subject research design was determined to be most appropriate for this study.
To evaluate the impact of the interventions of California Gateways and Lexia Reading, a
multiple baseline across participants design (Kennedy, 2005) was chosen which consisted of two
daily CBM probes following the instruction and intervention. Therefore, all participants’ CBM
results during baseline and intervention was assessed and charted. Each participant’s response to
the intervention was analyzed to determine whether the independent variables impacted the dependent variable (reading fluency and reading comprehension, respectively).

**Dependent Variable and Data Recording.** The dependent variable selected for this study was correct words per minute using ORF probes and number of correctly identified words using MPF probes. For each probe, only correct responses were recorded. The probes used in this study represented participants’ proficiency in reading connected text accurately and fluently, as well as growth in basic reading comprehension.

**Independent Variable and Intervention.** The independent variable for this study was California Gateways in combination with Lexia Reading. A daily lesson from California Gateways that consisted of five steps was administered for 120 minutes on Mondays, Tuesdays, Thursdays and Fridays and 100 minutes on Wednesdays to each student in a whole group setting. The lessons included ESDI, worksheets, reading California Gateways materials, writing activities, partner and whole group discussion, support, and immediate feedback. In addition to California Gateways, students worked independently at their own pace on the computer-based program, Lexia Reading, for a total of 30 minutes daily to develop their reading skills.

**Interobserver Agreement**

To calculate the reliability of data collected, an interobserver scored 30% of the probes across the study. Scoring was based on direct oral and written responses of each participant at the time of administering the assessments. The following is a description of the interobserver’s responsibilities when scoring 30% of the probes administered. After participants completed the Oral Reading Fluency probe, the interobserver counted how many words the participants read overall and subtracted the number of words read incorrectly. The interobserver then recorded this final number onto the participant’s individual progress monitoring log. After participants
completed the Maze Passage Fluency, the interobserver tallied up the number of total responses made by the participants on their individual worksheets and subtracted the number of incorrect responses. Finally, the interobserver recorded this number onto the participant’s individual progress monitoring log. The scores recorded by the interobserver for each of the CBM probes were calculated by dividing the smaller score by the larger score found for each and multiplied by 100.

**Training.** For the purposes of this study, the Instructional Assistant (IA) of the classroom in which this research was conducted was the interobserver. The interobserver was trained by the researcher in regards to the duties and responsibilities related to the research, as well as participant confidentiality. An additional human subject training was completed through the International Review Board Human Subjects via an online tutorial from San Diego State University.
CHAPTER 4

Results

Introduction

The goal of this study was to identify the academic and motivational impact of California Gateways instruction in combination with Lexia Reading intervention on the reading skills of English Language Learners with Disabilities (ELLs/D). Data were collected using Oral Reading Fluency (ORF) and Maze Passage Fluency (MPF) probes to answer the research questions. Additionally, results collected from the Motivation to Read Profile indicated the impact of California Gateways and Lexia Reading on participants’ self-concepts of themselves as readers, as well as the value they placed on reading.

Oral Reading Fluency

The ORF probe required participants to read as many words as possible accurately within the one-minute time trial (See Figure 1). The skill assessed by the ORF probe was reading fluency. The gold standard in Single Subject Research is Visual Analysis (Chenier, n.d.). However, after implementing Visual Analysis through trends it was determined that this alone was not enough to determine the effectiveness of California Gateways and Lexia Reading on the participant’s reading fluency abilities. A secondary analysis of the effect size was then calculated to determine the impact the intervention had on the participants' oral reading fluency. The researcher determined the percentage of data points exceeding the median of baseline to calculate the Percentage Exceeding the Median (PEM). The median of all baseline data was defined, and a horizontal line was added to each participant’s graph from beginning of baseline to end of intervention (See Figure 2). The percentage of data points above the line was the indicator of the success of the treatment (i.e. intervention). PEM scores ranged from 0-1. A
PEM score of 0.9-1 reflects highly effective treatment, 0.7-0.9 reflects moderately effective treatment, and less than 0.7 reflects questionable or not effective treatment (Wendt, 2009).

**Participant 1.** The average number of correct words read per minute Carlos was able to read during baseline was 16.8 and during intervention, 23. During baseline Carlos was able to read up to 26 correct words per minute and during intervention, he was able to read up to 38 correct words per minute. Carlos showed an increase in his oral reading fluency. Carlos’s PEM score was 0.83, which reflects a moderately effective treatment.

**Participant 2.** The average number of correct words read per minute Martha was able to read during baseline was 13.35 and during intervention, 22.02. During baseline Martha was able to read up to 20 correct words per minute and during intervention, she was able to read up to 26 correct words per minute. Martha showed an increase in her oral reading fluency. Martha’s PEM score was 1, which reflects a highly effective treatment.

**Participant 3.** The average number of correct words read per minute Alejandro was able to read during baseline was 46.75 and during intervention, 66.72. During baseline Alejandro was able to read up to 72 correct words per minute and during intervention, he was able to read up to 81 correct words per minute. While Alejandro showed an increase in his oral reading fluency, his PEM score reflects a questionable or not effective treatment (PEM=0.63).

**Participant 4.** The average number of correct words read per minute Anthony was able to read during baseline was 48.18 and during intervention, 67.83. During baseline Anthony was able to read up to 81 correct words per minute and during intervention, he was also able to read up to 81 correct words per minute. Anthony showed an increase in his oral reading fluency. Anthony’s PEM score was 1, which reflects a highly effective treatment.
Participant 5. The average number of correct words read per minute Gael was able to read during baseline was 47.72 and during intervention, 51.9. During baseline Gael was able to read up to 63 correct words per minute and during intervention, he was able to read up to 65 correct words per minute. While Gael showed an increase in his oral reading fluency, his PEM score reflects a questionable or not effective treatment (PEM=0.6).
Figure 1. Oral Reading Fluency
Figure 2. Oral Reading Fluency with Percentage Exceeding the Median
Maze Passage Fluency

The Maze Passage Fluency (MPF) probe required participants to identify which word choice within three word choice options best restored the meaning of that segment of the passage (See Figure 3). The skill assessed by the Maze Passage Fluency probe was reading comprehension. Following the first session after the intervention was introduced, three participants’ data points decreased and proceeded to immediately increase. The other two participants’ data points decreased after the first session following the intervention, and then continued to decrease again. Subsequently, the third data point after intervention displayed an increase in reading comprehension. Based on the standards of single subject research, visual analysis alone was not clear enough to determine the effectiveness of California Gateways and Lexia Reading on participant’s reading comprehension abilities. As was done with Oral Reading Fluency, a secondary analysis was needed for Maze Passage Fluency. The percentages of data points exceeding the median of baseline in Maze Passage Fluency results were calculated to determine the Percentage Exceeding the Median (PEM). This indicated to the researcher the effectiveness of intervention on participants' reading comprehension abilities. PEM scores ranged from 0-1. A PEM score of 0.9-1 reflects highly effective treatment, 0.7-0.9 reflects moderately effective treatment, and less than 0.7 reflects questionable or not effective treatment (Wendt, 2009).

Participant 1. The average number of correct responses Carlos was able to identify during baseline was 3.3 and during intervention, it was 2.95. During baseline Carlos was able to identify up to 5 correct responses and during intervention, he was able to identify up to 8 correct responses. Carlos showed a decrease in his maze fluency skills. With a PEM score of 0.27, the treatment was determined to be questionable or not effective.
**Participant 2.** The average number of correct responses Martha was able to identify during baseline was 1.27 and during intervention, it was 4.46. During baseline Martha was able to identify up to 5 correct responses and during intervention, she was able to identify up to 8 correct responses. Martha showed an increase in her maze fluency skills. Martha’s PEM score was 0.91, which reflects a highly effective treatment.

**Participant 3.** The average number of correct responses Alejandro was able to identify during baseline was 8.56 and during intervention, it was 11.72. During baseline Alejandro was able to identify up to 12 correct responses and during intervention, he was able to identify up to 16 correct responses. Alejandro showed an increase in his maze fluency skills. Alejandro’s PEM score was 0.91, which reflects a highly effective treatment.

**Participant 4.** The average number of correct responses Anthony was able to identify during baseline was 10.16 and during intervention, it was 12.83. During baseline Anthony was able to identify up to 16 correct responses and during intervention, he was able to identify up to 18 correct responses. Anthony showed an increase in his maze fluency skills. Anthony’s PEM score was 0.88, reflecting a moderately effective treatment.

**Participant 5.** The average number of correct responses Gael was able to identify during baseline was 7.27 and during intervention, it was 6.8. During baseline Gael was able to identify up to 12 correct responses and during intervention, he was able to identify up to 12 correct responses. Gael showed a decrease in his maze fluency skills (PEM=0.5), reflecting a questionable or not effective treatment.
Figure 3. Maze Passage Fluency
Figure 4. Maze Passage Fluency with Percentage Exceeding the Median
Motivation to Read Profile

The Motivation to Read Profile (MRP) required participants to self-survey themselves on two specific dimensions of reading motivations: self-concept of themselves as readers and the value they placed on reading (See Tables 1-3). All five participants were given the MRP the first week of baseline and the last day of intervention.

**Participant 1.** Following intervention, Carlos’s self-concept of himself as a reader decreased 20% and how he valued reading decreased 2%. His full survey score decreased 11%.

**Participant 2.** Following intervention, Martha’s self-concept of herself as a reader increased 10% and how she valued reading increased 10%. Her full survey score increased 10%.

**Participant 3.** Following intervention, Alejandro’s self-concept of himself as a reader increased 20% and how he valued reading increased 13%. His full survey score increased 16%.

**Participant 4.** Following intervention, Anthony’s self-concept of himself as a reader increased 5% and how he valued reading increased 13%. His full survey score increased 8%.

**Participant 5.** Following intervention, Gael’s self-concept of himself as a reader increased 15% and how he valued reading increased 13%. His full survey score increased 14%.
## Motivation to Read Profile

### Table 1

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
<th>Percentage Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlos</td>
<td>60%</td>
<td>40%</td>
<td>-20%</td>
</tr>
<tr>
<td>Martha</td>
<td>57%</td>
<td>67%</td>
<td>+10%</td>
</tr>
<tr>
<td>Alejandro</td>
<td>57%</td>
<td>77%</td>
<td>+20%</td>
</tr>
<tr>
<td>Anthony</td>
<td>67%</td>
<td>72%</td>
<td>+5%</td>
</tr>
<tr>
<td>Gael</td>
<td>50%</td>
<td>65%</td>
<td>+15%</td>
</tr>
<tr>
<td>Total Participant Average</td>
<td>58.2%</td>
<td>64.2%</td>
<td>+6%</td>
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</table>

### Table 2

<table>
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<th>Pre-Intervention</th>
<th>Post-Intervention</th>
<th>Percentage Growth</th>
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<tr>
<td>Carlos</td>
<td>87%</td>
<td>85%</td>
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<td>Martha</td>
<td>75%</td>
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<td>Alejandro</td>
<td>62%</td>
<td>75%</td>
<td>+13%</td>
</tr>
<tr>
<td>Anthony</td>
<td>62%</td>
<td>75%</td>
<td>+13%</td>
</tr>
<tr>
<td>Gael</td>
<td>62%</td>
<td>75%</td>
<td>+13%</td>
</tr>
<tr>
<td>Total Participant Average</td>
<td>69.8%</td>
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<td>+9.2%</td>
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### Table 3

<table>
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<th>Post-Intervention</th>
<th>Percentage Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carlos</td>
<td>73%</td>
<td>62%</td>
<td>-11%</td>
</tr>
<tr>
<td>Martha</td>
<td>66%</td>
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<tr>
<td>Alejandro</td>
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<td>76%</td>
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<tr>
<td>Anthony</td>
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<td>73%</td>
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<tr>
<td>Gael</td>
<td>56%</td>
<td>70%</td>
<td>+14%</td>
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<tr>
<td>Total Participant Average</td>
<td>64%</td>
<td>71.4%</td>
<td>+7.4%</td>
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Summary

The data collected indicated that all five participants increased their reading and maze fluency. Four of the five participants increased their percentage score on both subscales (Self-Concept as a Reader and Value of Reading). These same four participants also increased their Full Survey percentages. To better analyze the effects of California Gateways and Lexia Reading on participants’ reading fluency and comprehension, the researcher conducted a secondary analysis of the effect size. Results from Percentage Exceeding the Median (PEM) provide further evidence that California Gateways and Lexia Reading are effective reading programs in improving participants’ fluency and comprehension.
CHAPTER 5

Discussion

Introduction

To evaluate the academic and motivational impact of California Gateways and Lexia Reading for English Language Learners with Disabilities, a multiple baseline across participants design was chosen to be most appropriate. This study examined whether an Explicit Systematic Direct Instruction (ESDI) reading program and a computer-based individualized computer reading program approach would increase reading skills as well as motivation towards reading. After analyzing the data, all five participants increased their reading in the area of fluency and comprehension. According to the Oral Reading Fluency results, Carlos’s correct words per minute read increased 6.7, Martha’s increased 8.67, Alejandro’s increased 19.67, Anthony’s increased 19.65, and Gael’s increased 4.18 correct words per minute. According to the Maze Passage Fluency results, Carlos’ reading comprehension decreased .35, Martha’s increased 3.19, Alejandro’s increased 3.16, Anthony’s increased 2.67, and Gael’s reading comprehension decreased .47. These results were derived from Oral Reading Fluency (ORF) and Maze Passage Fluency (MPF) probes over the course of eight weeks. Four of the five participants’ percentages showed an increase in the areas of Self-Concept as a Reader, Value of Reading, and Full Survey.

Oral Reading Fluency

All five participants had some degree of basic understanding of reading fluency during baseline. According to California Gateways fluency reading passages and before intervention was introduced, participants proved they possessed various levels of basic fluency skills. Following the introduction of the intervention, four of the five participants’ fluency averages continued to increase. Anthony was the only participant who, after the first week of intervention,
decreased in reading fluency; however in the following week and every week thereafter, his fluency scores increased. The initial decrease in fluency can be attributed to limited English language exposure at home. With this in mind, it could be concluded that the rate at which students acquire the foundational reading skills could be directly related to their exposure in the English language at home. Additionally, students with disabilities’ exposure to foundational reading skills at home can determine their skill level and success rate in reading fluency.

Oral reading fluency is a lifelong tool that will strongly benefit those who have successfully mastered this skill. A staggering 34% of all elementary school students are unable to read at grade level (Snyder & Dillow, 2010). This statistic demonstrates that now more than ever that ELLs/D require a reading program that is tailored to their individual needs. Both California Gateways and Lexia Reading provide ELLs/D the direct instruction and frequent motivators necessary to build reading fluency skills. Research has established that students who have advantageous early educational experiences are able to utilize new educational experiences more efficiently than those who are unable to access these experiences (Walberg & Tsai, 1983).

**Maze Passage Fluency**

According to baseline data collection results, three of the five participants had some degree of basic understanding of reading comprehension during baseline. Martha had the lowest average during baseline of 1.27 correct responses, followed by Carlos with 3.3 correct responses. Following the introduction of the intervention, three of the five participants continued to increase at a steady rate. Gael’s reading comprehension scores fluctuated and his average number of correct responses in intervention was 0.47 correct less than baseline. Carlos’s reading comprehension score results were worthy of noting. There were four instances where his number of correct responses remained the same for two weeks in a row. Though his average
number of correct responses remained constant during several weeks, his averages of correct responses during intervention were 0.35 less than baseline. These decreases in reading comprehension can be attributed to many factors. Both Martha and Carlos’s reading fluency skills were very minimal which can influence their ability to successfully comprehend text. Additionally, Martha and Carlos’s level of verbal communication is exceptionally limited. Gael’s decrease in reading comprehension could be the result of absences that occurred during baseline. This demonstrated the significant role steady attendance had in maintaining students’ academic performance.

Reading comprehension is the ability to read a variety of materials and have an understanding of the reading. In addition to having an understanding of the reading, one must also be able to remember what was read and effectively communicative what was learned. For the purpose of this study, MPF probes were administered. The actual task of reading comprehension is different than maze passage fluency, but the skills needed to excel in both are the same. To excel in maze fluency, the reader must have a clear understanding of the text and be able to comprehend what the passage is about. Finally, by choosing the correct word choice, participants have confirmed they have reading comprehension skills.

Referring back to the Matthew Effect, for readers who are less accomplished, the task of reading comprehension lessons can seem overwhelming and a decrease in student motivation can be detected (Anmarkrud & Braten, 2009). By primarily increasing student motivation to read, research has suggested that reading comprehension skills can acquire. It is virtually guaranteed that students who are skilled at comprehending texts are also knowledgeable and strategic readers (Pressley, 2000).
Motivation to Read Profile

Participants were asked to complete a Motivation to Read Profile survey on the first day of baseline. Participants appeared to be apprehensive about responding and tense about the process. Following the intervention, participants were again asked to complete the Motivation to Read Profile survey. This time, they emerged to be more confident and had a more positive attitude when choosing their responses. The positive changes in responses can be attributed to the interactive and animated learning method that is present in Lexia Reading, and the variety of materials at each participant’s individual level that is included within California Gateways. It was observed throughout the intervention phase that the participants enjoyed developing their reading fluency and comprehension skills and were enthusiastic about participating in their California Gateways and Lexia Reading sessions. Results from the Motivation to Read Profile suggest that if students are interested in reading, value reading, and have high perceptions of themselves as readers, they may have increased skills in fluency and comprehension.

Increased student motivation and academic achievement are closely intertwined (Eccles & Wigfield, 2006). Students who believe they are competent in reading tend to perform at a level above and exceed expectations. Higher motivation directly influences performance, persistence, and effort on academic tasks (Eccles & Wigfield, 2000). Academic performance, enjoyment level, and an overall sense of accomplishment can be attained with an increase in motivation. The ability to enjoy reading and finding it easy-going leads to a greater motivation to continue reading (Walberg, Strykowski, Rovai & Hung, 1984; Walberg & Tsai, 1983).

Description of Limitations

This study had several limitations that included the length of research, student absences and classroom interruptions. The total length of time for this study was eight weeks and
included only five participants. Both of these restrictions could have negatively impacted the external validity leading to generalizations of the findings to a wider population. Other implications were mandatory state and district assessments, as well as unforeseen classroom disruptions. Sporadically, other staff members or students would enter the classroom and unintentionally distract the learning environment. On a small number of occasions, the interobserver was unavailable to administer or score assessments due to changes in the daily schedule. Other limitations included limited use of classroom computers. Out of the four student computers, only one had access to the Internet that was required for the thirty minutes of daily Lexia Reading intervention. A schedule was created to allow all participants their allotted daily time on Lexia Reading. A concern that escalated during the implementation of this study was whether or not either program would be as effective independently, as opposed to in combination with each other. This study does not provide an answer to that question. California Gateways was already implemented in the setting, and Lexia Reading was introduced as the intervention. Results of this study indicate the effectiveness of both programs in combination with each other.

Implications for Future Research

The results from this study further support the use of more direct instruction strategies in classrooms to teach English Language Learners with disabilities (ELLs/D) the skills not only to improve their academics, but also to increase their motivation in reading. The results of this study indicated that although participants’ reading fluency and comprehension did not noticeably grow from one session to a next, both skill levels did increase from baseline to intervention. Gains were exceptionally evident in the post-intervention Motivation to Read Profile, where the average increase in Self-Concept as a Reader was 6%, 9.2% in Value of Reading, and 7.4% in
the Full Survey. After analyzing these results, it is apparent that educating students in the foundational reading skills and exposing students at an early age can influence reading fluency and comprehension. This study allowed the participants to learn reading fluency and comprehension skills that can be maintained throughout the time. Using both California Gateways and Lexia Reading regularly throughout the school year will help students become successful in developing their reading skills. Integrating both curricula can also lead to gains in students’ self-concept of themselves as readers as well as the value they placed on reading.

To support teachers with a similar population in their classrooms, this study will be made readily available via presentations and a bound book in the California State University Monterey Bay library. The aim of this study is for teachers of ELLs/D to use the results to determine if California Gateways instruction in conjunction with Lexia Reading intervention will be an effective strategy to teach reading skills to their students. Additionally, the increasingly positive results of the Motivation to Read Profile in both areas of Self-Concept as a Reader and Value of Reading will increase the desire for teachers to adopt these reading programs. Lastly, this study could support the availability of California Gateways and Lexia Reading and other direct instruction and computer-based reading programs and materials in school districts in the future.

Conclusion

The results of this study showed increases in the number of correct words per minute read for Oral Reading Fluency for each participant as well as an increase in the number of correct responses to Maze Passage Fluency probes. This provided evidence that there was an increase in fluency and comprehension skills for all participants.

While the length of this study was brief, results concluded that implementing the direct instruction curriculum California Gateways, in combination with the technology-based
intervention program Lexia Reading, both were effective in teaching reading skills to ELLs/D. Furthermore, both programs positively affected all but one participants’ motivation to read by increasing their self-perceptions as readers and the value participants placed on reading. It was observed and proven by research that direct instruction teaching and the components of such programs, as well as a positive learning environment supports ELLs/D and their individual needs.

Ultimately, this study answered the three research questions presented within the introduction. Based on the results of this study, California Gateways and Lexia Reading can be utilized to increase the reading fluency and comprehension skills to support English Language Learners with disabilities, as well as affirmatively increasing student motivation to read. Research results can assist in creating a foundation for other teachers and professionals who are seeking research based reading development programs to support English Language Learners with disabilities. Additionally, the findings of this study further support the need for Explicit Systematic Direct Instruction and technology-based reading intervention programs in the classroom to increase the reading fluency, comprehension, and motivation towards reading of English Language Learners with disabilities.
References


Appendix A

California Gateways Sample Lessons
Practice Fluency Reading

One partner reads as the other partner listens and records errors.

**DIRECTIONS TO THE READER**

During reading:
- Read the passage to your partner.
- Read as accurately as possible.

Remember your reading goal is 60 Words Correct Per Minute (WCPM).

**DIRECTIONS TO THE LISTENER**

During reading:
As your partner reads, record the following errors with a strikethrough or check mark:
- mispronounced word
- skipped word
- changed word
- added word

Mom’s Back!

Dad must put the mess away. June makes Dad do it. Jake makes Dad do it.
Spot is just a pup. Spot just yips. Mom had a trip. Her trip was for five days.
Mom can come home. Dad is glad. June is glad. Jake is glad. Even Spot is glad.

Fluency Progress Chart: Unit 2

For each lesson, graph the number of words correct per minute by shading to the nearest number. Try to reach the **Goal** of 60 WCPM. Remember, WCPM only measures accuracy and pacing. Intonation and expression are also important to reading with fluency.
The Amazing Brain
by Allison Brandt
Illustrated by Jared Osterhold

The brain is the most important organ of the nervous system. The brain is the size of a big grapefruit. It is gray. It feels like a wet sponge. Your brain does many things. It helps you with everything you do. You use your brain all of the time.

Your brain has more parts than a computer. It sends messages to the rest of your body. Let's say you want to chew gum. First your brain tells your mouth to move. Then it moves. It also does things that you do not think about. It tells your heart to beat. It makes your eyelids blink.

Your brain is always working. It even works while you sleep. You use your brain to think, move, talk, breathe, and see.

How does the brain help the human machine work?

organ body part that does a special job
nervous system system that helps you move and feel

Notes
1. Who is this text about?

2. Where does this text take place?

3. When does this text take place?

4. What happens in this text?
Appendix B

Lexia Reading Sample Lessons
Appendix C

Oral Reading Fluency Samples
Aunt Pam worked for a vet. She had lots of stories about the animals she helped save. Aunt Pam liked to raise kittens when the mother cat was lost or sick.

One weekend Kate went to stay with Aunt Pam. Aunt Pam had three baby kittens. The kittens' eyes were not even open yet. Aunt Pam told Kate she could help take care of them.

The smallest kitten was black and not very strong. Another one was gray and cried a lot. The biggest one was white with black spots on his feet and ears.

Kate named each one. She called the black one Itty Bitty because it was so tiny. She named the gray one Dusty. She named the white one Snowman.

Kate thought the kittens looked sweet when they curled up in a ball and slept. Soon, they woke up and started to cry. They cried because they wanted something to eat. Aunt Pam warmed some formula, and Kate filled their small bottles.

"Which kitten do you want to feed?" Aunt Pam asked.

Kate picked Itty Bitty. Aunt Pam gave Kate a towel. She showed Kate how to wrap the kitten so it would not scratch. The kitten drank from the bottle for Kate. Kate felt grown because she could help.

All weekend, Kate helped her aunt with the kittens. Kate learned that it was a lot of work to take care of kittens. On Sunday night, Kate went back home. She called often to see how the kittens were. Aunt Pam said she had found good homes for Dusty and Snowman. Kate's mom said Itty Bitty could live with them! Itty Bitty would have the best home of all!
Answer Key

Aunt Pam worked for a vet. She had lots of stories about the animals she helped save. Aunt Pam liked to raise kittens when the mother cat was lost or sick.

One weekend Kate went to stay with Aunt Pam. Aunt Pam had three baby kittens. The kittens' eyes were not even open yet. Aunt Pam told Kate she could help take care of them.

The smallest kitten was black and not very strong. Another one was gray and cried a lot. The biggest one was white with black spots on his feet and ears.

Kate named each one. She called the black one Itty Bitty because it was so tiny. She named the gray one Dusty. She named the white one Snowman.

Kate thought the kittens looked sweet when they curled up in a ball and slept. Soon, they woke up and started to cry. They cried because they wanted something to eat. Aunt Pam warmed some formula, and Kate filled their small bottles.

"Which kitten do you want to feed?" Aunt Pam asked.

Kate picked Itty Bitty. Aunt Pam gave Kate a towel. She showed Kate how to wrap the kitten so it would not scratch. The kitten drank from the bottle for Kate. Kate felt grown because she could help.

All weekend, Kate helped her aunt with the kittens. Kate learned that it was a lot of work to take care of kittens. On Sunday night, Kate went back home. She called often to see how the kittens were. Aunt Pam said she had found good homes for Dusty and Snowman. Kate's mom said Itty Bitty could live with them! Itty Bitty would have the best home of all.

\[102 - 6 = 96 \text{ words per minute}\]
Appendix D

Maze Passage Fluency Samples
At my house, Friday night is family night. Our whole family gets together to (as, do, own) something fun. Two weeks ago we (ever, gone, went) bowling. Last Friday we went to (it, an, a) art show. This week we planned (to) for (lot) see a movie at the movie (problem, wanted, theater).

"What movie shall we see?" Dad (want, told, asked).

"I like action movies," my brother (said, when, took). "I like to watch cars crash. (A, My, I) like to watch super-heroes fly."

"I like animal movies," my sister said. "(My, I, If) want to see horses run free (why, out, in) fields. I want to see whales (very, swim, our) in the sea."

"I like funny (movies, nickels, thought)," Dad said. "I laugh when people (eyes, throw, play) pies. I laugh when people tell (super, about, funny) jokes."

"I like movies about love," (her, Mom, get) said. "I like it when a (man, wish, game) and a woman get married and (cars, see, live) happily ever after."

"I like cartoons," (if, I, my) said. "I like colorful movies with (a, be, to) lot of music."

What could we (fly, be, do)? Our family could not choose a (about, movie, night) to watch together.

Dad thought he'd (where, whales, solve) the problem. He said, "Why don't (us, we, not) stay home and play a family (game, check, funny)?" We all thought that was a (keep, when, good) idea.

"Let's play puzzles!" I said.

"(Them, Let's, With) play cards!" my brother said.

"Let's (play, say, music) checkers!" my sister said.

\[ 20 - 5 = 15 \]
Answer Key

At my house, Friday night is family night. Our whole family gets together to (as, do, own) something fun. Two weeks ago we (ever, gone, went) bowling. Last Friday we went to (it, an, a) art show. This week we planned (to, for, lot) see a movie at the movie (problem, wanted, theater).

"What movie shall we see?" Dad (want, told, asked).
"I like action movies," my brother (said, when, took). "I like to watch cars crash. (A, My, I) like to watch super-heroes fly."
"I like animal movies," my sister said. "(My, I, If) want to see horses run free (why, out, in) fields. I want to see whales (very, swim, our) in the sea."
"I like funny (movies, nickels, thought)," Dad said. "I laugh when people (eyes, throw, play) pies. I laugh when people tell (super, about, funny) jokes."
"I like movies about love," (her, Mom, get) said. "I like it when a (man, wish, game) and a woman get married and (cars, see, live) happily ever after."
"I like cartoons," (if, I, my) said. "I like colorful movies with (a, be, to) lot of music."

What could we (fly, be, do)? Our family could not choose a (about, movie, night) to watch together.

Dad thought he'd (where, whales, solve) the problem. He said, "Why don't (us, we, not) stay home and play a family (game, check, funny)?" We all thought that was a (keep, when, good) idea.

"Let's play puzzles!" I said.
"(Them, Let's, With) play cards!" my brother said.
"Let's (play, say, music) checkers!" my sister said.
Appendix E

Motivation to Read Profile Sample
Figure 2
Motivation to Read Profile

Reading survey

Name: Martha
Date: 11/8/2013

Sample 1: I am in ________.
☐ Second grade ☐ Fifth grade
☐ Third grade ☐ Sixth grade
☒ Fourth grade

Sample 2: I am a ________.
☐ boy
☒ girl

1. My friends think I am ________.
☐ a very good reader
☐ a good reader
☒ an OK reader
☐ a poor reader

2. Reading a book is something I like to do.
☐ Never
☐ Not very often
☒ Sometimes
☐ Often

3. I read ________.
☐ not as well as my friends
☒ about the same as my friends
☐ a little better than my friends
☐ a lot better than my friends

4. My best friends think reading is ________.
☐ really fun
☐ fun
☒ OK to do
☐ no fun at all

5. When I come to a word I don’t know, I can ________.
☐ almost always figure it out
☒ sometimes figure it out
☐ almost never figure it out
☐ never figure it out

6. I tell my friends about good books I read.
☐ I never do this.
☐ I almost never do this.
☒ I do this some of the time.
☐ I do this a lot.

(continued)
Figure 2
Motivation to Read Profile (cont’d.)

7. When I am reading by myself, I understand ____________.
   □ almost everything I read
   □ some of what I read
   □ almost none of what I read
   □ none of what I read

8. People who read a lot are ____________.
   □ very interesting
   □ interesting
   □ not very interesting
   □ boring

9. I am ____________.
   □ a poor reader
   □ an OK reader
   □ a good reader
   □ a very good reader

10. I think libraries are ____________.
    □ a great place to spend time
    □ an interesting place to spend time
    □ an OK place to spend time
    □ a boring place to spend time

11. I worry about what other kids think about my reading ________.
    □ every day
    □ almost every day
    □ once in a while
    □ never

12. Knowing how to read well is ____________.
    □ not very important
    □ sort of important
    □ important
    □ very important

13. When my teacher asks me a question about what I have read, I ________.
    □ can never think of an answer
    □ have trouble thinking of an answer
    □ sometimes think of an answer
    □ always think of an answer

14. I think reading is ____________.
    □ a boring way to spend time
    □ an OK way to spend time
    □ an interesting way to spend time
    □ a great way to spend time

(continued)
15. Reading is _________.
   □ very easy for me
   ☑ kind of easy for me
   □ kind of hard for me
   □ very hard for me

16. When I grow up I will spend ________.
   □ none of my time reading
   □ very little of my time reading
   ☑ some of my time reading
   □ a lot of my time reading

17. When I am in a group talking about stories, I ________.
   □ almost never talk about my ideas
   □ sometimes talk about my ideas
   ☑ almost always talk about my ideas
   □ always talk about my ideas

18. I would like for my teacher to read books out loud to the class ________.
   ☑ every day
   □ almost every day
   □ once in a while
   □ never

19. When I read out loud I am a ________.
   □ poor reader
   ☑ OK reader
   □ good reader
   □ very good reader

20. When someone gives me a book for a present, I feel ________.
    ☑ very happy
    □ sort of happy
    □ sort of unhappy
    □ unhappy