ADOLESCENT ENGLISH LANGUAGE LEARNERS IN THE CLASSROOM: STUDENTS' PERCEPTIONS OF USING READ 180

By

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To My Parents

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TABLE OF CONTENTS

page

LIST OF TABLES

LIST OF FIGURES

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

ADOLESCENT ENGLISH LANGUAGE LEARNERS IN THE CLASSROOM: STUDENTS' PERCEPTIONS OF USING READ 180

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This qualitative research study investigated four adolescent English Language Learners' (ELLs) perceptions of READ 180. READ 180 is a reading program designed for both struggling readers and English Speakers of Other Languages (ESOL) students (Scholastic, 2009a). Although there have been a number of research studies on the benefits of READ 180 for struggling readers with learning disabilities (e.g., Brown, 2006; Caggiano, 2007; Papalewis, 2004), there is a lack of research on whether or not READ 180 is beneficial to ELLs. Specifically, this study focused on how the ELLs responded to using READ 180 with respect to their cultural and linguistic needs and interests. This study was guided by the theoretical frameworks of culturally relevant pedagogy (Au, 1998; Gay, 2000; Ladson-Billings, 1995), literacy engagement and second language acquisition (Cummins, in press; Guthrie, 2004), and differentiated instruction (Rothenberg & Fisher, 2007; Tomlinson, 2003). Student interviews served as the primary data source and classroom observations and documents were used as secondary sources. Constructivist grounded theory (Charmaz, 2003, 2006) was used to analyze the data. The findings of the study showed that students' diverse cultural and linguistic backgrounds and differing English language ability levels made it difficult for the READ 180

program to meet all the cultural and linguistic needs of the participants. The advanced-level ELLs desired more challenging books to read, whereas the beginning- and intermediate-level ELLs desired more conversational English and supports in reading comprehension. Using grounded theory methods, the study showed the ways in which READ 180 both responded to and did not respond to the participants' needs in cultural, linguistic, and technological dimensions. READ 180 responded to the general needs and interests of ELLs; however, READ 180 failed to respond to the unique cultural and linguistic needs and interests of ELLs. These findings lead to a number of significant implications for ESOL teachers to consider regarding the use of READ 180.

CHAPTER 1
INTRODUCTION

Overview

The number of English Language Learners (ELLs) in the United States has been steadily increasing for the past decade. According to a report published in 2000 by the National Center for Education Statistics, more than 4.7 million people over the age of five, approximately 18% of the U.S. population, speak a language other than English at home (NCES, 2004). This trend is also reflected in both the elementary and secondary public school populations. The number of ELLs in 1990 was only 3.2 million or 14% of the population, suggesting a 47% increase within ten years.

When looking at student populations by state, in the year 2005-2006, Florida had the third largest number of ELLs with 221,705 or 8.3% of its total student population. California had the largest ELL student population with 25.1%, and Texas was second largest with 15.7% (FDOE, 2009). In Florida, the racial/ethnic representation of ELLs is shown in the following Florida Department of Education (2009) chart:

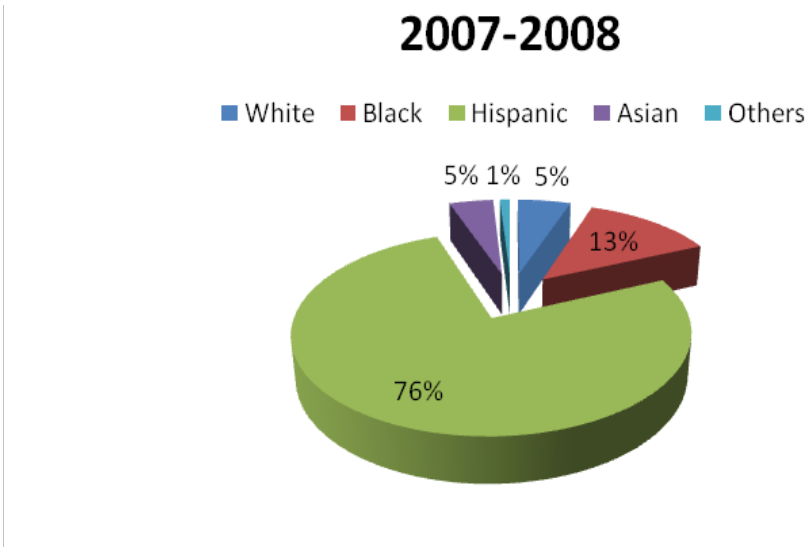


Figure 1-1. The demographic composition of English Language Learners in Florida (Adapted from FDOE, 2009)

Hispanic students represented the largest group of the ELL population at nearly 77% followed by Black students at 12.4%, White students at 5.4%, Asian students at 4.2%, and other students (multiracial and American Indian) at 1% in the 2006-2007 school year (FDOE, 2009). The most significant educational implication for this growing population is that educators must be prepared to meet the needs of their linguistically and culturally diverse students.

ELLs are defined by the state of Florida as individuals who are: (a) born in any country other than the United States and whose native language is not English, (b) from homes where any language other than English is spoken, (c) American Indians or Alaskan natives who come from homes where languages other than English impact English language proficiency, or (d) individuals who have difficulty speaking, reading, writing, or listening to English to the extent that they would not be able to "learn successfully in classrooms where the language of instruction is English" (FDOE, 2009, p.1).

The term English Language Learner (ELL) is used interchangeably with the terms Limited-English Proficient (LEP) and English Speakers of Other Languages (ESOL). For example, in the federally mandated *No Child Left Behind* Act (NCLB, 2001), the term LEP is used, and many public schools still refer to ELLs as ESOL students. Recently, however, the term ELL has become more commonly used in academia (e.g., Abedi, Hofstetter, & Lord, 2004; Harper & de Jong, 2005; Reeves, 2004) as well as by the state of Florida (FDOE, 2009). For the purposes of this study, I will use the terms ELLs and ESOL students interchangeable when referring to the participants.

The Importance of Literacy

There is considerable concern among politicians and educational policy makers with respect to the reading performance of children enrolled in public schools in the United States. The concern is that American students' reading proficiency is inferior to that of students from

other developed countries (Cummins, Brown, & Sayers, 2007). Consequently, there is a desire on the part of policy makers to remedy this problem by holding teachers and schools accountable for the reading achievement of their students with the implementation of laws such as NCLB (2001) with its current emphasis on standardized testing. According to NCLB (2001), "highly qualified teachers" (a) have a bachelor degree, (b) are state licensed and certified, and (c) know the subjects they are teaching (U.S. DOE, 2004). Implicit in this stipulation is the assumption that teachers are currently not well-trained enough to provide adequate instruction to improve students' reading achievement. Additionally, Zehr (2008) reports that some educators believe the accountability provisions of NCLB do not accurately portray the quality of education provided for ELL students because standardized tests cannot measure their progress. Many educators nationwide share the feeling that NCLB isn't flexible enough to reflect the gains made by their students, particularly those with academic challenges (Cummins et al., 2007; Darling-Hammond, 2007; Harper, Platt, Naranjo, & Boynton, 2007). Some educators have called for changes that would allow a school to measure more precisely individual students' academic growth, rather than to try to ensure that all students meet rigid academic targets (Abedi, Hofstetter, & Lord, 2004; Menken, 2006; Wu, Kim, & Harper, 2007). Furthermore, Cummins, Brown and Sayers (2007) indicate that the so-called literacy crisis that spawned the NCLB Act may be a fallacy. Regardless of the controversy surrounding NCLB there is currently an emphasis on the need to hold schools accountable for students' academic performance specifically related to literacy.

To improve reading, one federal program, Reading First, was designed to assist schools with funding to improve students' early reading experience in grades K to 2. However, several researchers argued that the reading achievement levels of U.S. students remained the same from

1992 to 2005 (Cummins, Brown, & Sayers, 2007; Krashen, 2004, 2005), despite the more than one billion dollars spent on Reading First programs nationally. Thus, some researchers question the effectiveness of Reading First with respect to students' reading achievement (Altwerger, 2005; Bracey, 2005; Garan, 2004; Krashen, 2008)

NCLB policy is based on the findings of the National Reading Panel (NRP) report of 2000. In this report that reviewed scientifically based research studies, the findings revealed the need for more reading interventions in public schools. However, some educational researchers point out that the NRP report (2000) was ideologically biased because the findings were not scientifically grounded (Allington, 2002; Coles, 2003; Garan, 2004; Krashen, 2004). August and Shanahan (2006, 2008) indicated that the NRP report (2000) intentionally excluded the scientific literature related to second language literacy development and English language learners. Nevertheless, because its mandates are tied to federal funding, public schools continue to follow the recommendations of NCLB by using a variety of reading interventions that purport to offer empirically based designed programs for struggling readers. Many educational publishers (e.g., Renaissance Learning Inc, Scholastic Inc, and Scientific Learning Inc.) are now providing reading software programs that offer struggling readers and English Language Learners multimodal ways of learning how to read.

Adolescent English Language Learners

According to the National Assessment of Educational Progress (NAEP, 2007), only one-third of all 8th graders in the U.S. read proficiently; the remaining two-thirds reading at or below grade level. For 8th grade ELLs, the number is even more astounding--only 8% of ELLs read proficiently (Figure 1-2). Additionally, 70% of ELLs read below grade level despite the fact that 57% of them are second and third generation immigrants (Batalova, Fix, & Murray, 2005). This

suggests that adolescent ELLs are more likely to encounter reading difficulties than their English-speaking peers.

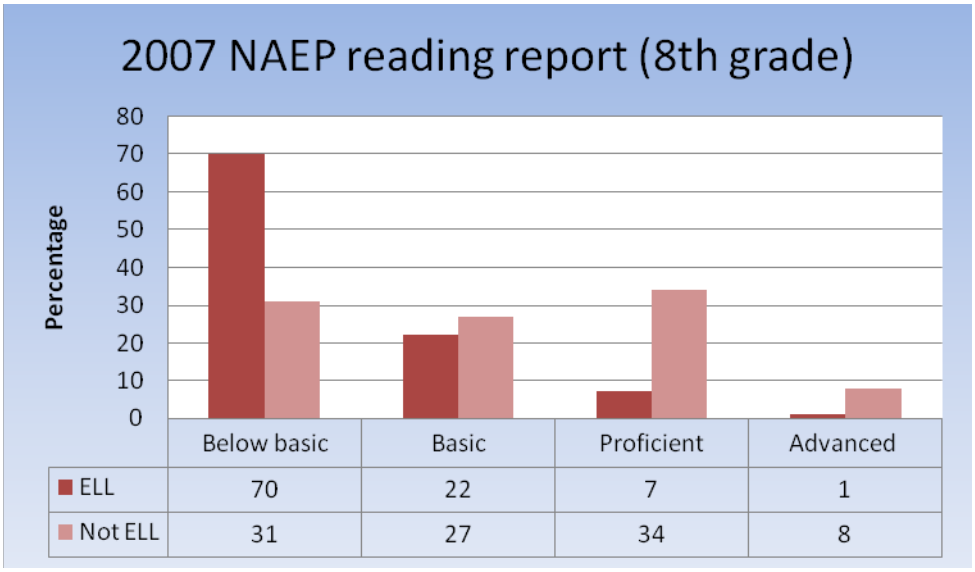


Figure 1-2. Eighth grade reading scores for ELLs and not ELLs (Lee, Grigg, & Donahue, 2007)

Indeed, adolescent ELLs face several challenges in their schooling (Garcia & Godina, 2004; Short & Fitzsimmons, 2007). ELLs come to school with a varied range of language proficiency and abilities. Some ELLs come to public school extremely proficient in their first language, or L1, while others have limited literacy in their L1. Short and Fitzsimmons (2007) explain that ELLs "must perform *double the work* of native English speakers in the country's middle and high schools" (p. 1, emphasis in original) because they are expected to acquire English as their academic language as well as learn the nuances of English as a social language. Cummins (1981) pointed out that learning a second language requires at least two to three years to develop communicative English skills and four to seven years to be competent in academic English (Cummins, 1981).

The academic needs of adolescent ELLs are "urgent but overlooked" (Alliance for Excellence Education, 2007). Although dramatic statistics exist regarding adolescent ELLs

facing academic challenges in U.S. schools, August and Shanahan (2006, 2008) point out that there is a paucity of research on the literacy development of adolescent ELLs. Thus, there is a need to fill this research gap (August & Shanahan, 2006, 2008; Short & Fitzsimmons, 2007).

Adolescent ELLs and Educational Technologies

Adolescents are motivated by technology (Sternberg, Kaplan, & Borck, 2007), and adolescent ELLs are no exception (Short & Fitzsimmons, 2007). Short and Fitzsimmons (2007) note that technologies offer multimodal ways of learning that appeal to adolescents, and motivate them to stay engaged in reading. Short and Fitzsimmons (2007) suggest that since adolescents have a high interest in "out-of-school literacies" such as computer games, Internet activities, iPods, music, and movies, these technologies could be integrated into the curriculum (p. 13). Educational technologies that integrate simulations, computer games, or other visual and auditory aids can engage students in literacy (Gambrell, 2006).

Multimodal ways of learning, as aforementioned, are reflected in the construct of "new literacies." In this construct, reading printed text only is considered limiting, as new technologies and media contain visuals and auditory input as part of everyday life (Kress, 2003; Lankshear & Knobel, 2006). In other words, students learn to process information from multiple pathways rather than relying on traditional texts. These new literacies include hypermedia, which integrates various types of media and features nonlinear presentations of information for students to choose their learning paths through the multiple forms of materials.

In addition, researchers have re-conceptualized literacy as many or "multiliteracies" as a way to challenge the traditional, static view of literacy (New London Group, 1996). One of the pedagogical implications of multiliteracies for teaching is that adolescents are exposed to both text and non-text forms of literacies and there is a need to consider their visual, aural, and semiotic understandings in addition to textual understandings (Walsh, 2006). Indeed, the

increased access to the Internet via computer technology encourages teachers to utilize free Internet resources for teaching (e.g., Godwin-Jones, 2007; Lord, 2003, 2004; Thorne, 2003).

Although the use of educational technologies is appealing and motivating to adolescents, it is complicated when applied to the learning needs of ELLs. In addressing second literacy instruction for adolescent ELLs, McCafferty (2002) notes the complexity of this process for students. ELLs must first become conscious of the different kinds of inputs they are receiving, including verbal, nonverbal, visual, and auditory. While they have become conscious of the inputs, they also attempt to incorporate them as part of their identities (McCafferty, 2002). In order to understand the complexity of technology use and L2 literacy, it is important to understand how the semiotic systems of content materials influence ELLs' identities (Cummins, Brown, & Sayers, 2007; Murray, 2005). For example, if an ELL student, from Vietnam, is reading with a tutorial software program about skateboarding, she may not have the prior knowledge to understand the lesson content. Therefore, although technology may be appealing and motivating to adolescent ELLs, when it is used to promote L2 literacy, technology needs to be culturally sensitive.

Increased Use of Educational Software

While the Internet has been as a resource for educational purposes, a tremendous amount of money has been spent by school districts on software programs over the last decade. According to Oppenheimer (2007), K to 12 schools spent 1.9 billion on electronic curricular products, as reported by Simba Information. This suggests that the use of educational software has become more prominent in school curricula. To date the research on the effectiveness of educational software focuses solely on students' academic achievement and standardized testing. However, there is little research that explores how educational software influences students' learning experiences. For example, Niederhauser and Stoddart (2001) note that, "computer

technology, in and of itself, does not embody a specific pedagogical orientation. Different types of software can be used to address a range of educational goals" (p. 29). For example, some educational software is specifically designed to help ELLs stay engaged in low-level reading programs that teach decoding and word recognition, while other software is designed to provide enrichment for ELLs who are reading beyond their grade level. Additionally, to promote reading, some software is behaviorist-oriented and uses drill and practice learning strategies that are designed to move information from the working memory to the long-term memory (e.g., Burton, Moore, & Magliaro, 2004; Chun & Payne, 2004). On the other hand, constructivist-based software is designed as a tool to help students construct their understanding of the text (Jonassen, 1996; Jonassen, Peck, & Wilson, 1999).

Statement of the Problem

READ 180: READ 180 is a reading intervention program that claims to provide differentiated instruction for "struggling readers" for all grade levels (Scholastic Inc., 2009a, n. p.). The term struggling readers refers to the group of students whose reading performance is at or below the 25th percentile on state standardized tests (Proctor, Dalton, & Grisham, 2007). This group is frequently comprised of students with learning disabilities whose first language is English, as well as students who are in the process of acquiring English as a second language (L2).

While some ELLs may be identified as struggling readers, their reading needs are different from those of native English-speaking students who are struggling readers. For example, Bernhardt (2005) reminds educators that unlike L1 students, L2 students' reading development is affected by their first language; that is, their L1 literacy knowledge as well as their knowledge of L2 influences their L2 reading experience. Unlike L1 students who have reading disabilities, many L2 readers may have acquired literacy skills in their native language but may lack the

cultural and linguistic knowledge necessary for comprehending English language text. In contrast, L1 students with learning disabilities have difficulty developing literacy skills in their native language. Regardless of these differences between these two groups, READ 180 purports to address the needs of both groups of students: struggling readers and English Language Learners (ELLs) (Scholastic Inc., 2009b). Although there are a number of research studies on the benefits of READ 180 for struggling readers with learning disabilities (e.g., Brown, 2006; Caggiano, 2007; Papalewis, 2004), there is a dearth of research that directly focuses on whether or not READ 180 meets the needs of ELLs in reading.

Purpose of the Study

This study focused on English Speakers of Other Languages (ESOL) students' perceptions of READ 180. As noted above, READ 180 is a reading program designed for both struggling readers and ESOL students. Unlike struggling readers, ESOL students have to become proficient in various forms of English, both social and academic forms (Cummins, 2003). Moreover, they are expected to acquire high degrees of literacy in English. Additionally, ESOL students come from culturally and linguistically diverse backgrounds and they have different learning experiences from their American peers (Nieto & Bode, 2008). Beyond language learning, an appropriate, if not effective, curriculum for ESOL students must provide opportunities for ESOL students to negotiate their cultural identities (see also de Jong & Harper, 2007).

According to Scholastic (2009a), READ 180 "provides a variety of instructional strategies for teachers" (p. 4), as well as in-service training to meet the needs of ESOL students. Although there have been numerous studies conducted on the influences of READ 180 on struggling readers' achievement (e.g., Brown, 2006; Caggiano, 2007; Papalewis, 2004), there is no research specifically targeted for ESOL students. According to Caggiano (2007), there is a need to

explore the cultural relevance of READ 180 and its influence on students from culturally diverse backgrounds.

This current research is designed to help teachers evaluate how READ 180 influences ESOL students' English language learning experiences.

Research Questions

In this study, there is one main research question and three sub-questions as follows:

How does the READ 180 reading intervention program reflect middle school ESOL students' linguistic and cultural backgrounds?

a) How do middle school ESOL students perceive their cultural backgrounds as being reflected in READ 180?

b) How do middle school ESOL students perceive their language learning as being reflected in READ 180?

c) How do middle school ESOL students perceive the use of technology facilitating their learning?

Operational Terms

English language learners (ELLs): ELLs are defined by the state of Florida as individuals who are (a) born in any country other than the United States and whose native language is not English, (b) from homes where any language other than English is spoken, (c) American Indians or Alaskan natives who come from homes where languages other than English impact English language proficiency, or (d) individuals who have difficulty speaking, reading, writing, or listening to English to the extent that they would not be able to "learn successfully in classrooms where the language of instruction is English" (FDOE, 2009, p.1).

Limited English Proficiency students (LEP): According to Section 9101.25 of Title IX of the U.S. Department of Education General Provisions for Elementary and Secondary Education, the term Limited English Proficiency is similar to ELLs and refers to students who are: (a) between the ages of 3 through 21, (b) enrolled or preparing to enroll in elementary or

secondary school, (c) not born in the United States or speak a language other than English as their first language, (d) who are American Indians or Alaskan natives, (e) who come from a background where their first language learning influences their ability to learn English, and (f) have difficulties speaking, reading, writing and understanding English in that it limited their ability to participate fully in public school (U.S. DOE, 2004).

Struggling readers (at-risk readers): Struggling readers are students whose reading performance is at or below the 25th percentile on state standardized tests (Proctor, Dalton, & Grisham, 2007). This category includes students with learning disabilities, students reading below grade level, and students with decoding and encoding problems.

Teacher fidelity: Teacher fidelity refers to the degree in which teachers implement academic interventions according to the protocol designated by the intervention (Pence, Justice, & Wiggins, 2008). Furthermore, according to Pence et al. (2008), "measuring implementation fidelity is a necessary intermediate step between delivering professional development to teachers and evaluating subsequent teacher and child outcomes" (p. 332). Teacher fidelity is generally rated on a scale from a moderate degree of fidelity to a high degree of fidelity, depending on the self-reporting of teachers who are implementing any given academic intervention.

READ 180: READ 180 is a reading intervention program designed by Scholastic Inc. to provide differentiated instruction for struggling readers and ELLs (Scholastic Inc., 2009a, 2009b). See Chapter 2 and 4 for more details.

Scholastic Reading Inventory (SRI): Scholastic Reading Inventory is a computer-based reading assessment program that is designed by Scholastic Inc. to measure students' reading proficiency and monitor students' reading progress.

Conclusions

This chapter builds on a rationale for conducting research on how adolescent ELLs and their ESOL teacher perceive the use of READ 180. While READ 180 is designed for both struggling readers and ELLs, there is a need to examine the degree to which it meets the needs of ELLs. The lack of research on adolescent ELLs also suggests a need to focus on this particular student population. One main research question is listed along with three subset questions. The findings from this study can help ESOL teachers evaluate whether or not READ 180 will be appropriate for their instructional practices when working with culturally and linguistically diverse students.

CHAPTER 2
REVIEW OF THE LITERATURE

Introduction

The purpose of this chapter is to provide the conceptual framework and a literature review for the study. The conceptual framework includes three theories: (1) culturally relevant pedagogy, (2) literacy engagement, and (3) differentiated instruction. In the following chapter, these three theories will be delineated and the relationship among them will be described. Implications are made for literacy education for culturally and linguistically diverse students. In addition, a review of the literature of empirical on READ 180 follows.

Culturally Relevant Pedagogy

The concept of culturally relevant pedagogy (CRP) has informed the field of education about the importance of cultural congruence in teaching and learning, the need for cultural diversity in educational content materials, ideology with respect to pedagogy, and cultural communication. CRP, as defined by Gay (2000), is a combination of critical pedagogy and sociocultural theory:

> Culturally responsive pedagogy simultaneously develops, along with the academic achievement, social consciousness and critique, cultural affirmation, competence, and exchange; community building and personal connections, individual self-worth and abilities; and an ethic of caring. It uses ways of knowing, understanding, and representing various ethnic and cultural groups in teaching academic subjects, process and skills. (p. 43)

Culturally relevant pedagogues believe that academic difficulties experienced by marginalized groups of students, such as ELLs, are due to the incongruence between the White, male, privileged pedagogical paradigm (McIntosh, 1988; McIntyre, 1997) and the culturally diverse funds of knowledge paradigm (Heath, 1983; Moll, Amanti, Neff, & Gonzalez, 1992). The white, male, privileged paradigm suggests that dominant White male culture is taught and reinforced in the culture of the school. A culturally–diverse paradigm suggests that students of color possess unique cultural knowledge that is not valued by the

mainstream school culture. When these two paradigms are incongruent, ELL student learning is hindered. (Au, 1998; Heath, 1983; Moll et al., 1992)

Advocates of CRP believe that providing a culturally relevant curriculum promotes the academic achievement of culturally and linguistically diverse students. One well-known example of this application of CRP is The Kamehameha Early Childhood Education Program (KEEP) (Au, 1980). This early literacy program was designed to increase the reading achievement of young, native Hawaiian students by implementing a curriculum that incorporated the CRP practice of "talk-story" (Au, 1980). The "talk-story" was a traditional linguistic practice of Native Hawaiians and the use of it in the KEEP curriculum helped students improve their literacy skills by using culturally appropriate practices (Nieto & Bode, 2008).

The theoretical underpinning of culturally relevant pedagogy is derived from two major sources: (1) critical pedagogy that describes how the societal power structure disempowers students from culturally diverse backgrounds (Freire, 1990; Freire & Macedo, 1987) and (2) socio-cultural theory that explains how and why students' home cultures should be integrated into the curricula (Vygotsky, 1978). Grounded in critical pedagogy (Freire, 1990; Freire & Macedo, 1987), culturally relevant pedagogues perceived that students from non-dominant groups are at a disadvantage due to the incongruence between their cultural knowledge and that of the mainstream groups (CREDE, 2002; Gay, 2000; Ladson-Billings, 1995).

Ladson-Billings (1995) explained that CRP perceives education as a political act in which teachers can "help students accept and affirm their cultural identity while developing critical perspectives that challenge the inequalities that schools perpetuate" (p. 469). Such inequity is the result of unequal distributions of cultural capital, with certain types of cultural capital (e.g., English as a first language) being favored over others (Bourdieu, 1986). To counter the coercive power structure that this unequal distribution of cultural capital creates,

CRP teachers must be aware that these sociopolitical forces create learning difficulties. For example, research has documented that non-Caucasian students have been marginalized in public education due to their incongruence with the mainstream culture both socially and politically (Shannon & Escamilla, 1999). Moreover, when considering language as a form of cultural capital (Bourdieu, 2000; Macedo, Dendrinos, & Gounari, 2003), ELLs are at a disadvantage particularly when English is used as the sole medium of instruction. CRP challenges teachers to explore the idea that students from non-Caucasian backgrounds have different but equally valuable forms of cultural capital (Bourdieu, 1986, 2000). This idea represents the essence of sociocultural theory in CRP.

Beyond critical pedagogy, sociocultural theory assumes that literacy practice is socially and culturally constructed and draws upon cultural relevant pedagogy (Vygotsky, 1978). Vygotsky's notion of Zone of Proximal Development (ZPD) illustrates the concept of scaffolding although he did not use the term. ZPD suggests that learning occurs when an individual receives assistance from more competent peers or teachers to move from a current level of knowledge to a more advanced level of knowledge (Vygotsky, 1978). For ELLs, the ZPD sheds lights on the importance of a student's competency in her first language (L1) because L1 can be a scaffolding tool to develop competency in a second language (L2) (Cummins, 1981).

Using a sociocultural theoretical lens to look at L2 literacy education, it is essential to consider the relationship between cultural identity and language learning of ELLs (Cummins, 1996). The sociocultural view of CRP specifically suggests that the native language and the home culture of culturally and linguistically diverse students should be viewed as assets (or resources) rather than as deficits. Culturally relevant pedagogues perceived the educational gap between Euro-Americans and students from diverse backgrounds as a result of cultural

incongruence. Under these circumstances, the role of the teacher is viewed as a mediator between the home and the school culture (Moll & Arnot-Hopffer, 2005).

As a demonstration of the effort to make the curriculum more culturally congruent with the mainstream, Moll (1992) and his colleagues connected the "funds of knowledge," of the family and community cultural resources of Mexican students to the classroom curriculum (Moll, 2006; Moll, Amanti, Neff, & Gonzalez, 1992; Moll & Gonzalez, 2004). In this study, the students' cultural differences were not abstract concepts unrelated to the classroom; instead, they became concrete forms of knowledge infused into the curriculum as vocabulary lessons and classroom discourse (Moll, 2006).

The concept of culturally relevant pedagogy suggests the need for teachers and schools to give a voice to students to express their understanding of the world. This study explores how the content of READ 180 influences ELLs' perceptions of themselves by addressing whether or not READ 180's materials reflect their linguistic and cultural backgrounds. Furthermore this study investigates how ELLs perceive the linguistic and cultural relevance of READ 180.

When READ 180 is integrated into the curriculum of an ESOL classroom, it represents a form of technological learning that has the potential to transform education. The National Reading Panel (2000) concluded that there "may be a promising use of technology in reading instruction" (p. 17). Indeed, research has shown that adolescents are more likely to be motivated through computerized reading instruction (Kim & Kamil, 2004). Many researchers have cautioned, however, that it is naive to view technology as a promising tool in empowering culturally and linguistically diverse students (Au, 2006; Bernhardt, 2006; Cummins, Brown, & Sayers, 2007). Au (2006) contended that technology could actually widen the literacy achievement gap between Euro-American students and students from diverse backgrounds. For example, when using technology in reading, Euro-American

students tend to receive a constructivist model of instruction that allows them to construct their own understanding of the text they are reading. Conversely, students from culturally diverse backgrounds tend to receive instruction which focuses on low level reading skills (Fitzgerald, 1995). However, Hubbard and Siskin (2004) argued that the teaching of low level reading skills with technology was an opportunity for ELLs to develop their basic understanding of English before they used it in social interactions.

Cummins, Brown and Sayers (2007) suggested that the current research findings were insufficient to indicate the overall effect of technology on academic achievement cross culturally. In the case of READ 180, ideological assumptions, made by the publisher, Scholastic Inc, were unrelated to any rigorous, empirical research. Independent research should be conducted to investigate how culturally and linguistically diverse students use READ 180.

Numerous researchers have called attention to the issue of cultural diversity in relation to technology. For example, Subramony (2004) argued that cultural diversity is underrepresented in technology, which he believed, was intentionally meant to foster the assimilation of diverse cultures into the dominant European-American, White culture. Furthermore, Chen (2007) questioned the neutrality of computer software:

> Computer software is biased, incorporating cultural preferences for such things as analytic and linear thinking, the way information is organised, and cultural-specific logic and rules. This can disadvantage ethnic minorities, who often are also increasingly at risk academically. Added to these biases, different cultural groups may have different perspectives that they use to interpret and organise information about the world. (p. 1114)

Similar to Chen (2007), Brander (2005) suggested that researchers examine whether or not cultural bias exists in the medium of language software. Smith-Maddox (1998) contended that culture should be "a dimension of academic achievement" (p. 302). Additionally, Smith-Maddox suggested that content relevance, teacher beliefs, classroom environments, and ethnic identities ideally would be the measurements for culturally relevant pedagogy. Since

the publisher of READ 180 intended to meet the needs of ELLs, with this software program, I follow Smith-Maddox's (1998) argument by asking the question -- how culturally relevant are the content materials of READ 180 to ELLs?

Literacy Engagement

Culturally relevant pedagogues also believe that students' socioeconomic backgrounds influence their levels of academic achievement (Au, 1998), while other researchers see academic achievement through the lens of literacy engagement. Literacy engagement advocates purport that when students are more engaged they can overcome the barriers related to their contextual backgrounds and achieve academic success (Guthrie, 2004; Kirsch, de Jong, LaFontaine, McQueen, Mendelovits & Monseur, 2002).

In a study of 32 countries conducted by the Organization for Economic Cooperation and Development (OECD), the test results of 15-years-old students using the Programme for International Student Assessment (PISA) suggested that highly engaged, low SES learners tended to outperform their non-engaged, middle class peers in reading achievement (Kirsch, de Jong, LaFontaine, McQueen, Mendelovits & Monseur, 2002, cited in Cummins, Brown & Sayers, 2007). Furthermore, Guthrie (2004) suggested that the relationship between literacy engagement and academic achievement is "reciprocal" or "mutual causation" (p. 6). The term mutual causation refers to the way in which academic success can happen as a result of engagement in reading and an engaged reader tends to experience academic success. Kirsch et al.'s findings (2002) suggested that literacy engagement promoted academic success in any group of students and perhaps served as a strategy for bridging the educational gap between privileged and marginalized students.

The term literacy engagement suggested a similar idea about the ways to motivate students to read (Guthrie & Humenick, 2004). However, unlike motivation, which refers to a commitment in cognitive thinking while reading, engagement is an encompassing term that

indicates that a learner is committed to reading academically, cognitively, affectively, and socially. According to Guthrie (2004), literacy engagement can be viewed on four dimensions: (1) time on task (paying attention to text, concentrating on meaning, and sustaining cognitive effort); (2) affect (enthusiasm and enjoyment surrounding the interaction with text); (3) the cognitive process of reading (questioning or comprehension monitoring); and (4) and the exposure of literacy activities (the amount and diversity of students' reading practices).

Guthrie (2004) contended that literacy engagement is observable as he notes: "teachers and researchers know engaged readers when they see them" (p. 2). For example, the definition of an engaged reader, according to Guthrie (2004), is a reader who spends time reading extensively and is able to monitor her comprehension. By contrast, a disengaged reader, according to Guthrie (2004), does not spend time reading and is uncertain about whether or not she understands a text and she has less control over her comprehension. However, such a dichotomy between engaged and disengaged readers may be oversimplified. Whether or not a reader is engaged may also be a result of the reading materials being used. In relation to L2 literacy, Bernhardt (2005) contended that there is a need to distinguish between a reading problem and a second language problem. ELLs, particularly those who are beginning readers, can be easily misinterpreted as disengaged readers or struggling readers. Simply observing the behaviors without having them voiced could limit a researcher's opportunity to understand them.

While Guthrie's (2004) literacy engagement applies to all types of readers and does not target ELLs, Cummins (in press) posited a literacy engagement theory specifically focused on ELLs' cultural backgrounds with the four dimensions of: (1) activating prior knowledge, (2) scaffolding meaning, (3) affirming identity, and (4) extending language. Cummins (in press) reminded teachers that ELLs need various forms of support—linguistic, visual, aural, and

verbal. Similar to Guthrie (2004), Cummins (in press) also asserted the affective and social dimensions of literacy engagement in a way that their identities must be affirmed so that they would be more willing to invest in learning. Finally, extended language use, in a similar fashion with Guthrie (2004), suggested that academic language required extensive exposure of reading in various forms of print genres.

The concept of literacy engagement is essential in this study because it assists in the examination of ELLs perceptions of how READ 180 both engages them in reading and meets their learning needs. On the Scholastic, Inc. website, the READ 180 publisher stated a commitment to adolescent struggling readers, including both ELLs and students with learning disabilities:

> ...these readers (adolescent readers) need to be engaged and given incentive to learn to read. The needs of English-Language Learners and students with learning disabilities also need to be taken into account. (Scholastic Inc., 2009c, n. p.)

However, it is questionable whether the same software used for struggling readers and ELLs can engage both groups who may have vastly different needs. For example, Short and Fitzsimmons (2007) noted that the educational needs of English-speaking struggling readers and ELLs were different. For example, native, English-speaking, struggling readers may need their teacher's guidance to recall information to comprehend text, whereas ELLs can access background knowledge to activate their learning. In studying adolescent ELLs, Garcia and Godina (2004) came to the same conclusion: activating ELLs prior or background knowledge is essential.

Short and Fitzsimmons (2007) also suggested that the motivation to read for adolescent native-English-speaking struggling readers was quite different from that of ELLs. The former group tended to have weak intrinsic motivation while the latter group had strong intrinsic and extrinsic motivation (Short & Fitzsimmons, 2007). Other researchers (Dörnyei, 2001; Dörnyei & Schmidt, 2001; Dörnyei & Ushioda, 2009) also confirmed that ELLs have

demonstrated strong motivation toward language learning. In other words, it is safe to say that ELLs are more motivated to read than are English-speaking struggling readers; consequently, the programs that are used to motivate these subgroups must be different.

The motivation for second language learners is essential because mastering a language takes time and requires patience and persistence from a language learner (Dörnyei, 2001). The motivation of a second language learner can be both intrinsic and extrinsic; intrinsic motivation includes the feelings of accomplishment toward language learning (Dörnyei, 2001). The ways in which a language learner perceives the relationship between her home culture/language and the target language/culture could shape the extent to which she would want to learn the target language. The extrinsic motivation, for example, is a learning environment that provides comfort, resources, incentive, rewards, and so on. A demonstration of low motivation results in disinterest, frustration, fear and lack of self-confidence (Dörnyei, 2001). The pedagogical implication for ESOL education is that teachers should relate the cultural and linguistic backgrounds to language learning by understanding second language learners' attitudes between the L1 and the L2 and creating a learning environment that allows learners to feel engaged and rewarded.

Differentiated Instruction

The practice of differentiated instruction (DI) is grounded in the understanding that the student population of any given classroom can be comprised of learners with mixed ability levels and culturally diverse backgrounds. Consequently, differentiated instruction is an approach designed to meet the needs of every student by rejecting a "one-size-fit-all" curriculum (Campbell, 2008; Gregory & Chapman, 2007; Paterson, 2005; Rothenberg & Fisher, 2007; Tomlinson, 2003). Meeting or responding to the needs of diverse learners requires that educators take into consideration each student's "learning styles, interest, goals, cultural backgrounds, and prior knowledge" (Benjamin, 2002, p. xii).

DI is adapted from the pedagogical strategies of special education, that were designed to assist teachers in meeting the needs of students with varying abilities in special and general education settings (Bender, 2002; Zigmond, 1995). When using DI, educators can adapt curricula by using multiple content materials, modifications of content materials, and scaffolding instructions to help students with mixed abilities succeed in the classroom (Gregory & Chapman, 2007; Tomlinson, 2003). Rather than placing students in separate classes according to their abilities, differentiated instruction encourages general education teachers to provide instruction in the least restricted environment to enhance the learning experience of students with varying abilities (Giangreco, Dennis, Cloninger, Edelman, & Schattman, 1993). Furthermore, differentiated instruction acknowledges that each student has her own strengths and can develop them to achieve academic success.

In general education, teachers who adopt DI strategies acknowledge students' multiple forms of intelligence by providing various ways of representation and instruction (Campbell, 2008; Gardner, 1993). A pedagogue who applies the DI approach to her classroom curriculum is an educator who values each student's individual styles of learning. As Campbell (2008) noted:

> Differentiated instruction is not a method or a strategy. As noted, it is a way of thinking and planning. It involves thinking about the different levels of readiness and ability, different students' interests, and different learning profiles. It means thinking about how to provide multiple entry points into content areas, so that all students can be successful in their studies. It means thinking about students both individually and collectively—their life experiences and their circumstances. (p. 1)

Thus, as Campbell (2008) explained, the purpose of DI is to provide a learner-centered environment that reflects students' needs, interests, and learning preferences. Tomlinson (1999, 2003) noted that DI can encompass three major dimensions: content, process, and product. First of all, providing a wide range of content materials can offer diverse students one avenue for learning; secondly, offering diverse students multiple ways of processing

information can increase comprehension, and thirdly, a variety of evaluation strategies can increase the production of work from diverse learners (Tomlinson, 1999, 2003).

The recognition of the importance of using DI in the classroom is increasing each year in the U.S. as the student population becomes more culturally and linguistically diverse and the educational trend toward total inclusion continue (MacGillivray & Rueda, 2004; Rothenberg & Fisher, 2007). This demographic trend has created the need for educators to be prepared to meet the needs diverse student populations; this is particularly true in the context of the ESOL classroom (Herrera & Murry, 2005; Rothenberg & Fisher, 2007). Herrera and Murry (2005) reported that the combination of cultural diversity, varying levels of English language proficiency, and varying academic levels can create challenges for ESOL teachers that can be addressed with the use of DI strategies. With the implementation of DI, teachers have the tools to adapt their curricula to reflect ELLs' academic levels and learning.

Hoover and Patton (2005) identified three criteria necessary for teachers to provide DI for ELLs: culture, language, and the content. Teachers should consider using a curriculum that reflects the culture of an ELL with respect to prior knowledge and value congruence as a way to provide sufficient scaffolding. Insufficient scaffolding or generic representations of diverse backgrounds may fail to meet the needs of culturally and linguistically diverse students. The content should not only be comprehensible but also reflect students' prior knowledge, life experiences, and language levels (Rothenberg & Fisher, 2007).

MacGillivray and Rueda (2004) noted that an effective DI in the literacy curriculum must start with an understanding of individual students' lives. Teachers are cautioned against approaching ELLs with a "deficit" model of instruction and are advised to maintain high expectation from all students (MacGillivray & Rueda, 2004). Since many ELLs live between two or more cultures and languages, educators are advised to take advantage of students' wealth of multiple cultural and linguistic resources. As Scholastic Inc. (2009b) maintains, the

READ 180 program is designed to meet the needs of ELLs with its instructional contents and instructions. In this study, I have attempted to explore students' perspective of how this reading intervention, in terms of the content, process and product, differentiates the cultural and linguistic backgrounds of ELLs through their learning experiences.

A Comparison of CRP, LE and DI

The three theoretical frameworks, Culturally Relevant Pedagogy (CRP), Literacy Engagement (LE) and Differentiated Instruction (DI), provide the lens for this study. CRP allows me to closely examine the experiences and perceptions of ELLs and the ESOL teacher with respect to their cultural backgrounds. LE allows me to examine how ELLS are engaged in reading in the context of using READ 180. DI informs the ways in which READ 180 reflects their learning needs. The three theories emphasize the relationship between students' identity, cultural background, and learning. In the following section, I describe how these three theories intersect and inform this study (see Figure 2-1).

The advocates of CRP, LE and DI acknowledge the importance of learning and attempt to empower students through various dimensions by: (1) activating the learner's background knowledge (e.g., cultural background and experiences); (2) using a variety of teacher/learner strategies; and (3) promoting social interaction and engagement. These theories suggest that effective teaching includes a variety of strategies to make curricula more relevant to students so that students can make the connections in order to acquire new knowledge. Additionally, dialogue and interaction can engage students in learning. In the next section, each aspect is described in detail.

First, the three theories maintain that the background of a learner (i.e., culture and experiences) influences her learning. The core objective is to make curricula more culturally relevant for diverse student populations that prior knowledge or experiences may be used to generate and acquire new knowledge. Content reading materials should be not only

culturally relevant to students but also reflect their diverse and multiple perspectives. In this study, how students relate their backgrounds to the texts in READ 180 is investigated.

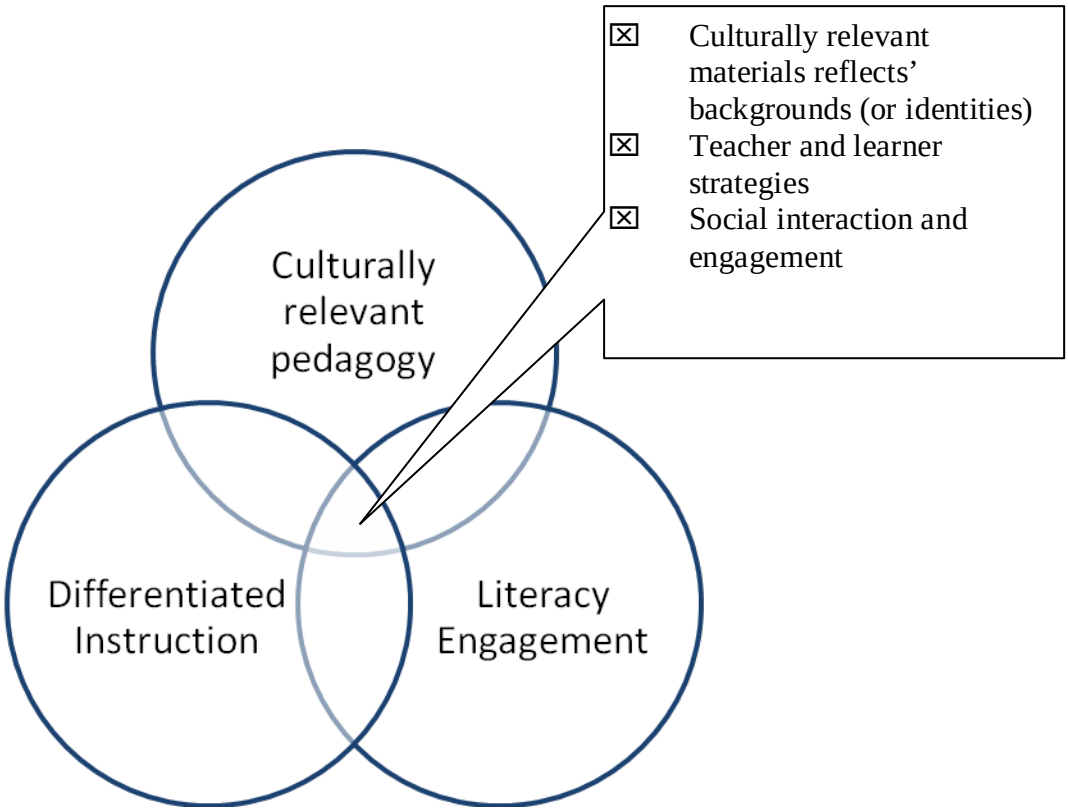


Figure 2-1. Intersection and comparison of culturally relevant pedagogy, literacy engagement and differentiated instruction

Second, using a variety of instructional strategies to meet various learners' needs is a second overlapping component. Although CRP advocates emphasize teacher strategies and LE focuses on the learner strategies, the ultimate goal is to use a variety of teaching strategies that align with student learning. Guthrie (2004) specified that reading strategies such as "activating background knowledge, questioning, searching for information, summarizing, organizing graphically, structuring stories, relating questions and answers, and performing elaborative interrogation with text" (p. 24). Rothenberg and Fisher (2007) also indicated the variety of instructional strategies suggests additional avenues to lessen the linguistic demands and make the input more comprehensible. This study therefore investigated the perceptions of

ELLs with regard to the degree that learning/teaching strategies are utilized appropriately in the context of READ 180 to engage students in reading.

Finally, all three advocates consider the role of social interaction in the classroom as a significant way to engage students in learning. Cummins (in press) considered dialogue as an opportunity for ELLs to expand their use of language. Advocates of LE assert that classroom conversation provides an opportunity for students to share their questions and clarify their understanding after reading a text. Guthrie (2004) argued that "engaged reading is often socially interactive" (p.4). Bender (2002) also used the whole group and small group discussions to create more opportunities for social interaction. In this study, when the READ 180 design incorporates small group work in its educational rotation, it is important to investigate how ELLs relate the small group discussions of READ 180 to the other two parts of the rotation: the software program and the independent reading, It is also important to observe whether or not students enjoy learning when using the READ 180 program.

Despite some of their differences, these theories are complementary to one another. Culturally relevant pedagogy incorporates critical consciousness that is lacking in Guthrie's (2004) literacy engagement theory. The theory of literacy engagement reflects students' propensity to read, but it does not address how certain mediums (e.g. texts, sounds, visual aids) may convey stereotypes, prejudices, and discriminations. Gay (2000) contended that the text materials were "controlled by the dominant group (European American) and confirmed its status, culture, and contributions" (p. 113). The convergence of these ideas suggested a need to examine how adequately cultural diversity was represented through the perspectives of ELLs and their use of READ 180.

READ 180

READ 180 is a reading program designed by Scholastic Inc. (2009a) to meet the needs of struggling readers, including English Language Learners (ELLs) and students with learning disabilities. The Scholastic website states the objectives of READ 180 as follows:

> An intensive reading intervention program that helps educators confront the problem of adolescent illiteracy and special needs reading on multiple fronts, using technology, print, and professional development. *READ 180* is proven to meet the needs of struggling readers whose reading achievement is below proficient level. The program directly addresses individual needs through differentiated instruction, adaptive and instructional software, high-interest literature, and direct instruction in reading, writing, and vocabulary skills. (Scholastic, 2009a, n. p., emphasis in original)

The following table (Table 2-1) indicates a program of 90-minute instruction using whole group and small group instruction, sequenced by whole-group (20 minutes), small group rotations (three rotations, 20 minutes each) and whole group (ten minutes). The three rotations include computer, teacher, and individual station. During the three-stage rotations, one-third of students learn with the topic CDs when they use the computer; one-third learn with student books in a small group using student materials (e.g., rBook and LBook) with the teacher; and one-third of students choose paperback books to read silently.

Table 2-1. READ 180 instruction model (Scholastic, 2009d)

Whole Group Instruction (20 mins)	Small Group Rotations (60 minutes)			Whole Group Wrap-Up (10 mins)
The teacher begins the day by providing direct instruction to the whole class.	Small Group Instruction (20 mins) Students use rBook, a student textbook with thematic unit, in a small group with the teacher.	Software (20 mins) Students use the software, comprised of four zones (Reading, Word, Spelling, and Success) independently.	Individual Silent reading (20 mins) Students choose to read paperback and audio books independently.	The day ends with 10 minutes of whole-group instruction.

READ 180 offers reading instruction for three levels: elementary, middle, and high schools; particularly for students with learning disabilities and English Language Learners. According to the Scholastic Inc. website, the program has been sold to more than 7,000 schools in the United States (Scholastic Inc., 2009b). As it is designed to meet the needs of ELLs, the READ 180 software offers additional language translation for anchor video description and vocabulary definition, including Spanish, Cantonese, Haitian Creole, Hmong, and Vietnamese for language support (Scholastic Inc., 2009b).

Table 2-2 indicated that READ 180 provides instructional materials and resources for both teachers and students for use in a middle school classroom. The teacher resources include instructional resources, such as an rBook Teacher's edition, and the resources for differentiating instruction, assessment, professional development and installation guide (Scholastic Inc., 2009e). Student materials included rBook, LBook, software, paperback books and audio books (Scholastic Inc., 2009f). The topic software included in READ 180 offered nine CDs. Both rBook and LBook are printed materials for students to use in a whole group and small group instruction when they are not using the software. They were especially designed for ELLs with three stages for three levels of students (Stage A-elementary, Stage B-middle school, and Stage C-high school) and were intended to be used in whole group and small group discussions (Scholastic Inc., 2009b). Scholastic Inc. (2009g) stated that the LBook "

> ensure[d] **all** *READ 180* students, especially ELLs at different language proficiency levels are able to access the academic language, word learning strategies, and grammar required to participate in accelerated instruction toward ELA [English Language Art] grade-level standards" (Scholastic Inc., 2009f, n. p., emphasis in original)

The rBook series was designed to "promote active engagement of all students, even those recently acquiring the English language" (Scholastic Inc., 2009b, n. p.). However, it should be noted that the teacher in this study only used the rBook in her ESOL classroom during the research period (see Chapter 4). Paperback books were leveled with three

(elementary) or four (middle and high school) levels with a total number of forty titles available for middle school students. The audio books offered 12 titles, each of which included an audio CD, but were not leveled.

Table 2-2. Components of READ 180

READ 180 components	
Teacher materials (Scholastic, 2009e)	• rBook (Teacher's edition) • Teaching resources for topic software, audio books, and paperbacks • Placement, assessment guide • rSkills tests • Test-taking strategies
Student materials (Scholastic, 2009f)	• rBook (for ELLs) • LBook (for ELLs) • Software • Paperback books • Audio books

Review of READ 180 Studies

A review of the research conducted on READ 180 between 2003 and 2008 reveals 14 dissertations and one journal article (Papalewis, 2004) (see Table 2-3). These studies were conducted using quantitative research (Barbato, 2006; Brown, 2006; Campbell, 2006; Gentry, 2006; Kratofil, 2006; Witkowski, 2004; Woods, 2007) or mixed method designs (Denman, 2004; Thomas, 2005; White, 2007). The findings from these studies are not consistent in terms of the effectiveness of the READ 180 program intervention. This chapter is organized to report on these studies in the following manner: (a) studies with findings that report the positive effects of READ 180; (b) studies with findings that report no effects from the implementation of READ 180; and (c) studies with findings that report confounding effects on students' reading achievement and/or attitudes toward reading.

Positive Effects

Six of the 14 studies showed positive results in terms of the effectiveness of READ 180 with students' reading achievement (Denman, 2004; Felty, 2008; Kratofil, 2006; Nave, 2007;

Papalewis, 2004; Thomas, 2005). Papalewis (2004) examined the effectiveness of READ 180 with 537 8th graders who were identified as struggling readers in an urban school district. The ethnic composition of the sample population included: Hispanic (78%), African American (14%), White (3%), and Asian (3%). Moreover, 69% of the students in the sample population were ELLs. Using a quantitative experimental design within a treatment period of one year, the results of the post tests suggested a significant gain in participants' reading achievement by comparing students' Reading and Language Arts Normal Curve Equivalent (NCEs) scores from the previous year. Although the study by Papalewis (2004) reported that the READ 180 strategy was "particularly applicable" for ELLs, there was no concrete evidence supporting how this was applicable to ELLs (p. 36).

Similarly, Nave (2007) examined the effectiveness of READ 180 on the reading achievement of struggling readers from grades five to seven. Using a quantitative experimental design, the study compared the results of the READ 180 intervention to students' test scores on the Tennessee Comprehensive Assessment Program (TCAP). This comparison included the TCAP reading and math scores. The finding indicated that participants who received the READ 180 intervention had significant gains in their test scores on the TCAP as compared to their counterparts who had not used READ 180. The study concluded that READ 180 may have a positive impact on students' reading achievement.

Moreover, Thomas (2005) examined the degree to which implementation and teacher fidelity of READ 180 influenced at-risk learners' academic achievement and motivation. Using both quantitative and qualitative methods, he studied 183 middle school students from 15 classes at nine schools. Classroom observations were also conducted. The results indicated that a high level of teacher fidelity showed gains on students' reading achievement. The study concluded that teacher beliefs could influence the implementation and effectiveness of READ 180 on students' reading achievement.

Denman (2004) and Felty (2008) used a mixed research design to explore students' reading achievement and their attitudes toward reading. Both studies showed that READ 180 improved both students' reading performance and attitudes toward reading. Denman (2004) studied the impact of READ 180 on reading achievement of 85 struggling readers from grades five to six. Using quantitative and qualitative methods, this study was conducted using the following quantitative designs: (a) experimental and control groups, and (b) scores from pre-and post- tests. The Standardized Test of Achievement in Reading (STAR) was used as the baseline to separate the experimental and control groups. Participants' test scores from the Scholastic Reading Inventory (SRI) were used to determine the effects within the experimental group. The qualitative techniques used included: (a) teacher interviews, (b) focus group interviews, and (c) observations, to gather descriptive data that explore students' attitudes toward reading. Like Thomas (2005), Denman (2004) found that students' attitudes and achievement in reading improved with READ 180 when teacher fidelity was moderate.

Felty (2008) examined the effectiveness of READ 180 on reading achievement and motivation with 47 students in the eighth grade from non-White and low SES backgrounds for a period of eight months. The study was conducted using quantitative and qualitative methods using pretest-posttest, surveys, interviews, and observations. Using a series of five tests from 4Sight Reading and the state's standardized Pennsylvania System of School Assessment (PSSA) as a baseline. The study showed that there was a significant gain in the READ 180 treatment group. The study also explored teachers' and students' perceptions of READ 180. The quantitative findings from the study indicated that READ 180 significantly improved students' reading performance on the PSSA. The descriptive data indicated further that both teachers and students believed that READ 180 improved reading decoding, fluency, vocabulary, and comprehension.

Kratofil (2006) investigated the effects of READ 180 on 90 middle school students who were considered struggling readers in grades six and seven. These students' reading performances prior to the implementation of READ 180 were at least two levels below their grade level. Using an experimental research design, the study found that there was a significant difference between the treatment and the control group by comparing the participants' reading test scores of SRI.

No Effects

Three studies showed that READ 180 did not improve students' reading achievement when using students' standardized test scores as a measure of improvement. The findings from these studies suggested there were no significant differences in reading achievement after the use of READ 180 (Bebon, 2007; Caggiano, 2007; Campbell, 2006). One study compared READ 180 with two non-computerized reading programs and found that READ 180 was no more effective than non-computerized reading programs (Witkowski, 2004).

Bebon (2007) examined the impact of READ 180 on middle school migrant students' reading comprehension based on their reading performance scores from the Texas Assessment of Knowledge and Skills (TAKS) from 2004 to 2006. Migrant students were first language Spanish-speaking, from low SES backgrounds. Using a quantitative design, Bebon (2007) compared the pre-test and post-test scores of the treatment group (N=349) and control group (N=247). The findings indicated that there were no statistical differences between and within these groups. Based solely on their reading scores, the study concluded that READ 180 may not improve migrant students' reading comprehension.

In another doctoral dissertation, Caggiano (2007) examined how READ 180 affected the reading achievement of 120 struggling readers in grades six to eight. The findings were mixed, indicating that when READ 180 was implemented with moderate teacher fidelity, there were significant gains on the reading achievement of students in grade six, but not those

in grades seven and eight. Scores were based on the Scholastic Reading Intervention (SRI) test. The findings also indicated that there were no significant gains in reading performance between the treatment groups (all grades) and the control groups (all grades) based on their test scores from the Virginia Standards of Learning Assessment (VSLA).

Finally, Campbell (2006) studied the effectiveness of READ 180 on 144 middle school struggling readers. Using an experimental design, the treatment group received the READ 180 intervention and the control group received the non-computerized Language Arts Intensive Reading Instruction. Using ANOVA, the result showed no significant difference in reading achievement between these two groups.

Rather than comparing students' performance of READ 180 to standardized test scores, Witkowski (2004) compared students' use of READ 180 with two groups of students using non-computerized reading programs, "Reading in the Content Area of World or U.S. History" and "English Support." The participants in this study were 63 high school students with learning disabilities. Using pre-and post-test scores, the findings indicated that students in the Reading in the Content Area program had better gains than those in READ 180 and the English Support program. The study also used surveys to examine whether or not the three reading programs improved students' attitudes towards reading. The findings from the study showed no significant changes in reading attitudes among these three groups.

Confounding Effects

Four studies indicated that READ 180 had either no effects or minimal effects among certain group of students (Barbato, 2006; Brown, 2006; Gentry, 2006; Woods, 2007). Gentry (2005) examined the effectiveness of READ 180 with a group of 30 students in the ninth grade in an urban high school. Using a mixed method design, the study was conducted quantitatively with pre-test and post-test scores using ANCOVA to analyze the differences between the treatment and control group. The findings showed that there was no significant

difference between these two groups. In terms of social variables, the findings suggested that a gender effect was significant as the results show that girls scored higher than boys. However, there was no significant effect related to students' SES. As a follow-up qualitative component to this study, the researcher used class observations as well as teacher and student interviews to explore students' attitudes toward reading. The qualitative data supported the quantitative findings of data that there was a gender difference in the attitude of reading between boys and girls; girls tended to be more engaged in READ 180 than are boys.

Brown (2006) investigated the effectiveness of READ 180 with students in grades six to eight by comparing students' READ 180 scores to their scores from the Tennessee Comprehensive Assessment Program (TCAP). With a total of 2,198 subjects (49% 6^{th} graders, 34% 7^{th} graders, and 16% 8^{th} graders), the findings showed that using the READ 180 program as a reading intervention improved students' reading score in the TCAP. Similar to Gentry's (2006) findings, students' from lower SES backgrounds did not benefit from the implementation of READ 180. Furthermore, the levels of teacher fidelity with the implementation of READ 180 did not significantly relate to the TCAP gains. Such findings contradicted those of Woods (2007).

Barbato (2006) studied the efficacy of READ 180 on reading achievement scores with 91 elementary students in the fourth grade. Using a quantitative research design, he found positive gains with the implementation of READ 180 by comparing participants' pre-test and post-test SRI reading scores. However, with the same participants, there was no significant difference in their Group Reading Assessment and Diagnostic Evaluation (GRADE) test scores between the treatment and the control group. The GRADE is an independent reading assessment unrelated to the READ 180 intervention and Scholastic Inc.

Woods (2007) investigated the effect of READ 180 on reading achievement of 384 middle school students in grades six though eight for a period of three years. Using an

experimental design, the study compared the differences between the treatment group that used READ 180 and the control group that received traditional remedial reading intervention and the impact of these interventions on dropout frequencies. The findings suggested that there was no significant difference between treatment and control group during the first year of implementation, whereas the results were significant for the second and third year of implementation. This suggests that a long-term commitment to READ 180 may produce academic benefits for students. The study concluded that when READ 180 was implemented with moderate teacher fidelity, it could improve students' reading achievement. In addition, the study concluded that the READ 180 intervention did not reduce the dropout rate.

Table 2-3. Summary of findings from 14 dissertation studies on READ 180

Author(s)	Title	Study focus (Research Question)	Methodology (Participants/setting)	Significance/Conclusion	Suggestions for future research
Barbato, (2006)	A preliminary evaluation of the READ 180 Program	examined the effect of a modified implementation of Scholastic's READ 180 Program	Quantitative study: 4 Repeated measures: Pre-test and post-test of reading score of SRI Participants: 91 4th grade students	Students who participated in the READ 180 Program made statistically significant reading gains as evidenced by a pre-intervention and post-intervention test administration of the READ 180 Program's SRI.	
Bebon, C. D. (2007)	The impact of a reading program designed to increase comprehension and proficiency of middle school migrant students in a South Texas school district.	To determine whether or not READ 180 is effective for increasing the reading comprehension and proficiency of middle school migrant students.	Quantitative study: using causal-comparative design 6 middle schools (N=349/ N=247)	No statistically significant differences were found within or between the groups.	N/A
Brown, S. H. (2006)	The effectiveness of READ 180 intervention for struggling readers in grades 6--8.	the effect of READ 180 on Tennessee Comprehensive Assessment Program (TCAP) % proficient reading scores	Mixed design: Quantitative methods: Survey and ANOVA data analysis to indicate the correlation between test score; Qualitative methods: interviews were identified for improving the program's design and implementation. N=925 students and 34 teachers	There was no significant relationship between teacher perceptions of the READ 180 program implementation and TCAP gains.	N/A

Table 2-3. Continued

Author(s)	Title	Study focus (Research Question)	Methodology (Participants/setting)	Significance/Conclusion	Suggestions for future research
Caggiano, J. A. (2007).	Addressing the learning needs of struggling adolescent readers: The impact of a reading intervention program on students in a middle school setting	To examine the impact of READ 180 on grade 6-8 students' reading achievement	Quantitative study: Experimental study 2 middle schools: Treatment group=1182; Control group=888)	The modified implementation model of the READ 180 program yielded significant results on a measure of growth in reading comprehension (Scholastic Reading Inventory) for Grade 6 students who participated in the program. The findings revealed no significant differences for students in grades 7 and 8 on this dependent measure. There were no significant differences in performance between the groups of students in grades 6, 7 and 8 on the 2006 Virginia Standards of Learning Assessments in reading and mathematics when compared to students who did not participate in the intervention.	To explore the impact of culturally relevant pedagogy in this remedial program on students who come from culturally diverse backgrounds.

Table 2-3. Continued

Author(s)	Title	Study focus (Research Question)	Methodology (Participants/setting)	Significance/Conclusion	Suggestions for future research
Campbell, Y. C. (2006)	Effects of an integrated learning system on the reading achievement of middle school students	Investigate the effects of READ 180, an integrated learning system, on the reading achievement of middle school students who read below grade level	Quantitative study: Experimental design ANOVA analysis N=144 (Experimental group=71; Control group=73)	No statistically significant difference in reading achievement between the two groups. Outcomes of this study were impacted by various contextual issues such as program implementation and pedagogical support.	More research is needed to determine whether READ 180 instruction is effective in increasing the reading achievement of middle school students with reading delay, and whether or not the reading knowledge and skills acquired, transfer to other reading tasks and measures.
Denman, J. S. (2004)	Integrating technology into the reading curriculum: Acquisition, implementation, and evaluation of a reading program with a technology component (READ 180(TM)) for struggling readers	Evaluate a reading curriculum with a technology component (i.e. READ 180) that was designed for struggling older readers.	Mixed design: Surveys, focus groups and student interviews, classroom observations, and pre and post testing, two groups of students (experimental and control) were compared Grade 5-12	Identifies low motivation, low confidence, and different learning preferences as three major obstacles that face our struggling readers.	N/A

Table 2-3. Continued

Author(s)	Title	Study focus (Research Question)	Methodology (Participants/setting)	Significance/Conclusion	Suggestions for future research
Gentry, L. (2006)	An evaluation of READ 180 in an urban secondary school	Evaluate the effectiveness of an intensive reading program, "READ 180," in an urban secondary school.	Mixed design: Quantitative study: Experiment Analysis of Co-Variance Qualitative study: Student and teacher interviews Participants: 9th grade	Results were mixed, some positive statistically significant differences were found with moderate to strong effect sizes, between students involved with the READ 180 model and a comparison group relative to standardized reading achievement measures.	To study how implementations in an curriculum are related to administrative policy To study what influences students' choices to read.
Kratofil, M. D. (2006)	A comparison of the effect of Scholastic READ 180 and traditional reading interventions on the reading achievement of middle school low-level readers	Compare the effect of Scholastic READ 180 to the effect of traditional reading interventions on the reading achievement of sixth and seventh graders who had been diagnosed as reading at least two levels below grade level	Quantitative study: Experimental study: treatment (n=57)and control group (n=33) Repeated measures analysis of Co-variance Participants: 90 6th and 7th grade struggling readers who are at least two levels below grade level	The study found that there was a significant difference between the treatment and the control group by comparing the participants' reading test score of SRI.	Define clearly the relationship between reading intervention and reading achievement.

Table 2-3. Continued

Author(s)	Title	Study focus (Research Question)	Methodology (Participants/setting)	Significance/Conclusion	Suggestions for future research
Nave, J. (2007)	An assessment of READ 180 regarding its association with the academic achievement of at-risk students in Sevier County schools	Evaluate the effectiveness of READ 180 on the test score of TCAP	Quantitative study: Experimental Three-way ANOCA Participants: Grade 5 and 7	READ 180 was significantly associated with the success for many of the at-risk students whether by gender, socioeconomic status, or overall student numbers as compared to their at-risk counterparts who were not enrolled in the READ 180 program.	To study on the program's impact on the English as a Second Language (ESL) students who participate in the program.

Table 2-3. Continued

Author(s)	Title	Study focus (Research Question)	Methodology (Participants/setting)	Significance/Conclusion	Suggestions for future research
Thomas, D. M. (2005)	Examining the academic and motivational outcomes of students participating in the READ 180 program	Examine the academic and motivational outcomes among students exposed to various implementation fidelity levels of the READ 180 program.	Mixed design Quantitative study: Experimental study. Qualitative study: Observation Independent variables in this study included grade, READ 180 fidelity implementation levels (high, medium, low, or no READ 180), teacher ethnicity and year's teachers implemented the program. Dependent variables in the analysis included the Scholastic Reading Inventory (SRI) assessment, school attendance, library checkout and the Reader Self Perception Scale (RSPS).	Students from classrooms with a high level of fidelity in program implementation demonstrated the greatest gains on the SRI.	Examine the teaching goal orientation and class contexts.
White, L. M. (2007)	A middle school under review: A study on the effectiveness of two implementation models of the READ 180 program on special education students' reading performance.	Explore and compare the impact of these two READ 180 models on the reading achievement of special education students.	Mixed design: Quantitative study: Qualitative study: Classroom observation; interview N=96 students	Special education students made gains in reading while they were afforded the same educational offerings of their peers in the regular education population.	N/A

Table 2-3. Continued

Author(s)	Title	Study focus (Research Question)	Methodology (Participants/setting)	Significance/Conclusion	Suggestions for future research
Witkowski, P. M. (2004)	A comparison study of two intervention programs for reading-delayed high school students	Explore and compare the impact of the programs, READ 180, a content area reading program called Reading in the Content Area of World or U.S. History, and A third program, English Support.	Quantitative study: nonequivalent, control-group design N=63	There were no significant changes in reading attitudes across time in any of the three groups. The Reading in the Content Area Program produced significantly better gains in reading comprehension than did either READ 180 or the English Support Programs. It is difficult to improve attitudes toward reading once the student becomes an adolescent.	N/A
Woods, D. E. (2007)	An investigation of the effects of a middle school reading intervention on school dropout rates	Investigate the effects on reading achievement for middle school students after participation in READ 180, as well as the relationship of program participation to later dropout rates, compared to students enrolled in a traditional reading remediation program.	Quantitative study: Experimental group Data analysis: t test and chi-square N=384 (grade 6 to 8 students)	There were no significant differences between the treatment and comparison groups in reading scores during the first year of READ 180 implementation. An intensive reading intervention, READ 180, can significantly improve reading achievement for struggling adolescent readers when implemented with moderate fidelity.	A qualitative study is recommended to examine the administrative decisions related to the reading program.

The Need for Future Research on ELLs

The majority of participants in these research studies are struggling readers or at-risk readers. Although some ELLs could be struggling readers, their learning needs in reading are significantly different, as noted in Chapter 1. Although Papalewis (2004) concluded that READ 180 could be beneficial for ELLs, very few of the studies available for review targeted ELLs as research subjects. The study by Bebon (2007) is the one exception because it focused on students from migrant populations who were ELLs. Consequently, as Nave (2007) suggested, there is a need for more research focused on the effectiveness of READ 180 and ELLs. Additionally, Caggiano (2007) suggested that researchers explored the impact of culturally relevant pedagogy with respect to the READ 180 program and how it influenced students from culturally diverse backgrounds. Overall, the research reviewed here indicates a need for further exploration and descriptive data related to the contextual issues of cultural diversity, SES, gender, and teachers' beliefs about the use of READ 180 as a reading intervention for ESOL students.

Conclusions

In this chapter, I used culturally relevant pedagogy, literacy engagement, and differentiated instruction as the theoretical framework to study the use of READ 180 in an ESOL classroom. The three theories are defined, described, and the relationship among them has been discussed. In addition, a review of literature related to READ 180 has been provided. In the following chapter, I will describe the methods and epistemological framework that will guide the study.

CHAPTER 3
METHODOLOGY

Introduction

For a long time, I was driven to the positivist philosophical stance that reality is fixed and knowledge exists to be discovered. In my previous role as a learner and teacher, I was also driven to believe that test scores were indicators of learning achievement. As I reviewed the literature related to the use of READ 180 in Chapter 2, I discovered that I was not alone. Students' test scores were commonly used to evaluate the effectiveness of educational software programs being used in the classroom. However, the literature did not provide me with much information about how culturally relevant the content materials were for English Language Learners (ELLs); thus, I applied the research paradigm of interpretivist, to my study in order to explore the connection between research and teaching.

In this chapter, I will outline a methodological design that uses constructionism as the epistemological stance that guided my study of READ 180. In the section that follows I will explain the research design, including my data collection and data analysis methods.

Qualitative Research

Qualitative research is a field of inquiry that aims to understand the complexity of a social context by exploring people's beliefs, values, and attitudes within that context. Bogdan and Biklen (1998) describe the purpose of qualitative research:

> Unlike quantitative researchers, qualitative researchers do not see themselves as collecting "the facts" of human behavior, which when accumulated will provide verification and elaboration on a theory that will allow scientists to state cause and predict human behavior. Qualitative researchers understand human behaviors as too complex to do that and see the search for cause and prediction as undermining their ability to grasp the basic interpretive nature of human behavior and the human experience. (p. 38)

Recognizing the distinction between quantitative and qualitative research allows a qualitative researcher to report more than "just the facts." Merriam (2002) states that, "the key to

understanding qualitative research lies with the idea that meaning is socially constructed by individuals in interaction with their world" (p. 3). In other words, one purpose of qualitative research is to seek an understanding of the meanings that individuals make of their realities. A qualitative research design in this study allowed me to capture the meanings that my ELL participants made of their experiences using READ 180.

Pilot Study

In the fall of 2007, I conducted a pilot study that provided the impetus for the current study. The purpose of the pilot study was to explore the perceptions of ESOL teachers and ELLs regarding their experiences in using reading software. Using a qualitative research design, the study examined both teachers' and students' perceptions of using two types of educational software, READ 180, and a content-based software program, Orchard. The pilot study emphasized the strengths and limitations of both software programs from the perspectives of two ESOL teachers and 14 ELLs. Specifically, this pilot study answered the following research questions: How do ESOL teachers and ELLs perceive the effectiveness of using reading software? How does the use of reading software promote or limit ELLs' learning?

In the pilot study, two ESOL middle school teachers, whom I refer to as Ms. Dickenson and Mrs. Smith, and 14 ELLs were selected as study participants. A novice ESOL teacher, Ms. Dickenson was in her second year of teaching. In contrast, Mrs. Smith was a veteran teacher who had been teaching for more than 25 years. The students' level of language proficiency was determined by the school. Students assessed at intermediate level of language proficiency were placed in Ms. Dickenson's class, while Mrs. Smith's class consisted of beginning level ELL students.

Data were collected over a period of six weeks, from mid-October to the end of November 2007. The data sources included: (a) observations, (b) teacher interviews; (c) student focus

group interviews, and (d) archival data, from instructional manuals. I used observations in order to capture participants' daily routines regarding the use of the software. The two teacher interviews each lasted approximately 30 to 45 minutes. The interview questions included how ESOL teachers perceived the pedagogical beliefs embedded in the software and how the software influenced students' experiences. The student interview protocol included questions about students' most and least preferred parts of the software and how the software helped them learn English. The archival data included printed course materials related to READ 180, such as teacher manuals and online information from the publisher's websites. The content materials, such as the topic CD, were used as probes for generating interview questions for Ms. Dickenson.

I used thematic analysis. Due to time constraints, only the interview data, including that from the students and teachers, were analyzed. Three main themes emerged from the data: (1) the cultural relevance/sensitivity of software; (2) the influences of using the software on classroom interactions; and (3) ELLs' perceptions of how the software engaged them in learning.

Ms. Dickenson perceived that READ 180 was not sufficiently culturally relevant to her ELLs, although the publishers of the software promote it as culturally relevant. Ms. Dickenson found that many topics in the READ 180 software package were U.S. and Euro-centric (e.g., the Little Rock Nine, the Art Attack, Skateboarding, Princess Diana). Accordingly, she suggested that READ 180 could have provided more culturally relevant materials for international students. Although the publishers of READ 180 stated that the software addressed the linguistic and cultural needs of ELLs, it was Ms. Dickenson's perception that students' cultural backgrounds were not sufficiently reflected in the software materials. Meeting the needs of ELLs requires a reading program that not only assists ELLs with second language acquisition but also one that is culturally and linguistically sensitive to the prior knowledge of diverse students. The findings

from my pilot study indicated that one ESOL teacher, Ms. Dickenson, believed that the READ 180 content was predominantly based on American popular culture. This intrigued me to explore student perspectives on the cultural relevance of READ 180 since the students were the ones who were exposed to the program. Because I had conducted focus group interviews with several students at a time, my findings did not yield substantial data to obtain an in-depth understanding of students' perspectives or a deep understanding of how they perceived the program's benefits for learning English. Thus, in the current study, I attempted to deepen the understanding of how ELLs perceived ways in which the READ 180 program met their cultural and linguistic needs.

Constructivism

Constructivism is a theoretical perspective that looks for the individual meaning making processes of research participants, while rejecting the positivist view that knowledge is objective and waiting to be discovered (Crotty, 1998; Fosnot, 2005; Gale & Steffe, 1995; LaRochelle & Bednarz, 1998). Constructivism is grounded in constructionism, the epistemological belief that knowledge is the product of social practices and institutions and is therefore socially constructed (Audi, 1999; Berger & Luckman, 1967). Crotty (1998) further explained with regard to constructionism, "meanings are constructed by human beings as they engage with the world they are interpreting" (p. 43). From the perspective of constructionists, knowledge is the interplay between the objective world and the subjective mind. Rather than believing that knowledge is transmitted from the knower to the knowee, constructionists believe that knowledge is constructed and multiple realities are created by individuals (Crotty, 1998). Constructionists assert that there is no objective knowledge collectively agreed upon and that knowledge is constructed by individuals under any given circumstance or situation (Schwandt, 2000).

Gergen and Gergen (2008) employed constructionism and constructivism interchangeably and were not consistent in the uses of the terms but they contend that there is a distinction between constructionism and constructivism. While both share the view that there is no objective truth, constructivism focuses on the individual meaning rather than the collective one. Constructivism falls into a subcategory of constructionism because the mind "constructs reality in its relationship to the world" (Gergen, 1999, p. 60). Constructionism has been developed into several subareas, including constructivism (Wadsworth, 1996), social constructivism (Schwandt, 2000), radical constructivism (von Glaserfeld, 1995) and critical constructivism (Kincheloe, 2005). In this study, I took the theoretical perspective of constructivism, which allowed me to explore the individual minds of the ELLs in terms of how their own culture and language shaped their learning experiences with the use of READ 180.

The pedagogical implications of constructivism and literacy is that teaching and learning practices take learners' prior knowledge into account and allow learners to construct their own meanings. In other words, multiple forms of knowledge exist to be explored and there is no objective knowledge that all learners share. For ELL students, their language and culture influence the ways in which they constructed their meanings in the learning context. In this study, constructivism was used to describe the epistemological framework in order to explore how ELLs construct meaning within their social world with their learning experiences with using READ 180.

Research Design

Research Setting

The READ 180 program was designed for use with elementary, middle school, and high school students. I was informed by the Florida County School Board (pseudonym) of one middle school ESOL class using the program. As such, this study took place in a middle school

ESOL classroom (see Chapter 4). I collected data from the end of November 2008 to the end of January 2009 (see Table 3-1 for the timeline of the study). I used numerous data collection techniques, including student interviews, field notes from classroom observations (researcher in classroom), and unobtrusive data (publisher-related materials, student reading logs and worksheets), in order to triangulate findings.

The primary data source was six sets of 30-minute individual interviews with the students. The secondary data included 30 hours of class observations and student documents. The way I integrated primary and secondary data was by beginning with classroom observations and using the expand field notes to create interview questions. Student reading logs (see Appendix J for example) were collected on a weekly basis and were also used for each participant to reflect on the readings they had read. I used student reading logs as an ancillary tool to interview my participants by asking them the reason that they chose to read particular books, both READ 180 and non-READ 180 books, and their reflections from the books.

Table 3-1. Data collection timeline

Data collection period	Interview with each ELL (Primary data)	Observation (Secondary data)	Documents (Secondary data)
Week 1 (Nov.25~Nov. 30)	First	Began on December first, four visits per week, and two hours per day. The total observational hours were approximately 30 hours.	Student reading logs and worksheets on a weekly basis
Week 2 (Dec. 1~6)	Second		
Week 3 (Dec. 7~13)	Third		
Week 4 (Dec. 14~19)	Fourth		
Week 5 (Jan. 15~21)	Fifth		
Week 6 (Jan. 22~ 28)	Sixth		

Selection of Participants

I used criteria sampling to recruit study participants who provided me with data to answer my research questions (Kuzel, 1999; Patton, 1990). Patton (1990) described the basis of this method as "focus(ing) on selecting information-rich cases whose study will illuminate the questions under study" (p. 230). I recruited four student participants in one local middle school for my study.

I used the following criteria to recruit my student participants:

1. Participants were currently middle school students in grade 8 who are receiving ESOL services.
2. Participants were enrolled in one class in which the teacher utilizes the READ 180 program.
3. Participants spoke Chinese or Spanish as a first language.
4. Participants were immigrants who have been in the United States for at least six months.
5. Participants used computer technology and have access to the Internet at home

In this study I answered the research questions presented above. In order to answer the questions, I followed a data collection process as delineated in Table 3-2.

Data Collection

Qualitative data may consist of a variety of data collection techniques, depending on the research study. Morse and Richards (2002) defined "good data" as information that is "rich, thick, and dense," and that offers sufficient detail to allow readers to understand the setting and situation of the research without asking further information (p. 90). In this study, the data were focused on understanding the ways in which the student participants made meaning and found value in their use of READ 180 as an intervention for learning English. I used transcribed interviews (primary data), field notes from classroom observations (secondary data), and collected documents (secondary data) to enhance the validity of this study (see Figure 3-1).

Table 3-2. Data planning and collection matrix (Adapted from LeCompte & Schensul, 1999)

Research Questions	What did I need to know?	Why did I need to know this?	What kind of data answered the question?	Where did I find the data?	Whom did I need to contact for access?
How does the READ 180 reading intervention reflect middle school ESOL students' cultural and linguistic backgrounds?	To what extent does READ 180 address the issues of cultural and linguistic diversity? How important is cultural diversity to ELLs?	To explore how READ 180 addresses ESOL students' cultural linguistic and backgrounds.	Primary data sources: Student interviews Secondary data sources: Archival data (Documents); Observations	READ 180: (Websites, student records); Middle school site	District, Principal, Teacher, Students, Parents
a. How do middle school ESOL students perceive their cultural backgrounds as being reflected in READ 180?	To what extent do READ 180 materials address ESOL students' cultural backgrounds?	To understand how READ 180 materials address ESOL students' cultural backgrounds.	Primary data sources: Student interviews Secondary data sources: Archival data (Documents); Observations	READ 180: (content materials-topic CDs and books); student journal logs; Middle school site	District, Principal, Teacher, Students, Parents
b. How do middle school ESOL students perceive their language learning as being reflected in READ 180?	To what extent does READ 180 help ESOL students to learn English?	To understand how READ 180 responds to ESOL students' linguistic needs	Primary data sources: Student interviews Secondary data sources: Archival data (Documents); Observations	Middle school site	District, Principal, Teacher, Students, Parents
c. How do middle school ESOL students perceive the use of technology facilitating their learning?	How do ESOL students perceive technology helps them learn?	To understand how ESOL students learn with technology in READ 180	Primary data sources: Student interviews Secondary data sources: Archival data (Documents); Observations	Middle school site	District, Principal, Teacher, Students, Parents

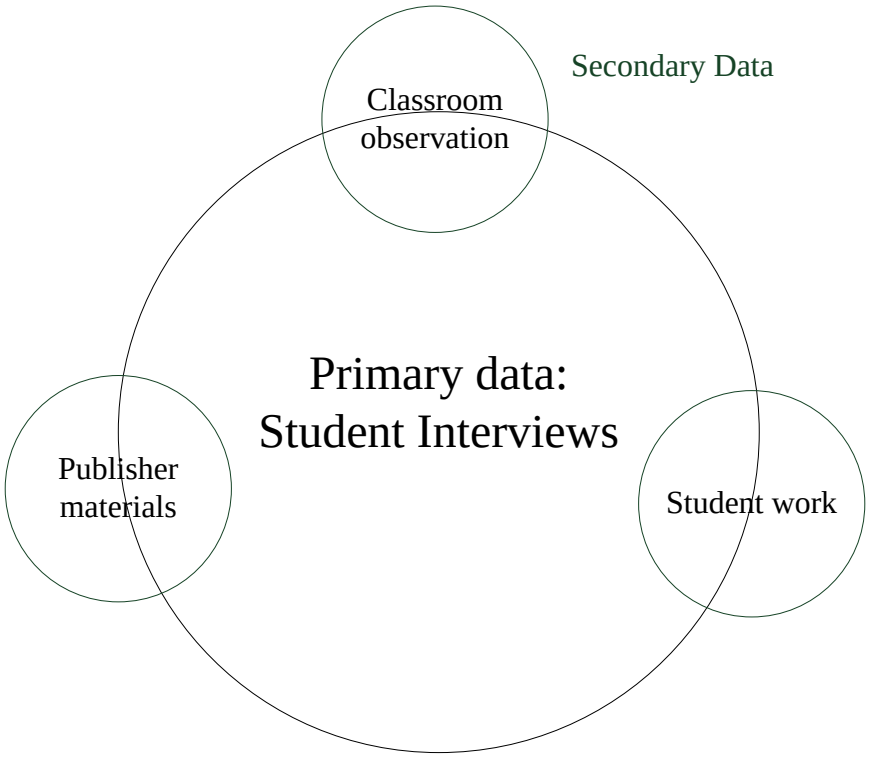


Figure 3-1. Data collection within a constructivist framework

These multiple sources of data allowed me to gain complex and in-depth perspectives of my participants' perceptions of READ 180.

To get the approval for conducting this research, I submitted a proposal of research protocol to the Institutional Review Board (IRB) at the University of Florida (Appendix A). Upon receipt of the IRB approval, I contacted the director of research for the Florida County School Board (pseudonym). Upon his approval, I was given permission to conduct my research in one middle school in Florida County (pseudonym). I was also informed by the director of research that there were three K-12 public schools providing ESOL services, one of which was the middle school in this school district. The Office of Research contacted the middle school principal and he agreed to allow me to conduct my research project at his school. The ESOL teacher, Ms. Anderson, was informed by the school principal of my desire to conduct research in her class. She initiated an interview with me to talk about my research study and after meeting with me agreed to participate in the study. Informed Consents for the

teacher (Appendix B), students (Appendix C), and their parents, were sent and signed before data collection began. English (Appendix D), Spanish (Appendix E), and Chinese (Appendix F) versions of the Informed Consents for parents and for students were provided.

The data collection process for interviewing participants, designed to be a combination of classroom observations and interviews, began with the first round of student interviews. Next, I used the data gathered from the observations and student documents to create interview guides for each subsequent follow-up interview.

Interview: The Primary Data

Scholars have emphasized the importance of interview data and how knowledge is generated from the process of interviewing (Holstein & Gubrium, 2003; Kvale, 1996, 1999; Seidman, 1991). Kvale (1996) contends that interviews allow people to describe their experiences and perceptions to the researcher in their own words. From a constructivist perspective, interviewing is a method in which it is possible to capture the subjective views of participants, providing that their knowledge is relevant to the topic under study. A good interview will require the researcher to practice and to reflect on the interaction with participants.

While interviews can be classified as structured, semi-structured, and open-ended, the latter two are most commonly used in qualitative research studies. A semi-structured interview model allows participants the opportunity to articulate their experiences in a natural and non-restrictive way. The open-ended interview is an unstructured conversation with the participant without prepared questions. One of the strengths of an open-ended interview is that it can be conducted like a friendly conversation in which the researcher can establish rapport with her participants (Hatch, 2002). When using observation as a secondary data source, the interview developed from observations allows respondents to make meanings of their observed actions. When using student work as another secondary data source, the open-

ended interview allows respondents to make meanings of their thoughts. Moreover, multiple follow-up interviews provide researchers with opportunities to clarify participants' statements for greater understanding of the interview data.

Interviewing adolescent students can be a difficult task for qualitative researchers in terms of their recruitment and the manner in which adolescent students often simply respond "Yes" "No" - or other short response - to interview questions (Bassett, Beagan, Ristovski-Slijepcevic, & Chapman, 2008). Eder and Fingerson (2003) contend that the power imbalance between the researcher and participants needs to be carefully considered, especially when researchers conduct interviews with adolescents and children, as they are a powerless group due to their age. If adolescents have been taught to obey authority figures, as research participants they may simply respond in ways that they feel the researcher desires; conversely, because of their developmental issues, some of them may be more resistant to answering the researcher's questions (Beaunae & Wu, 2009).

In this study, I interviewed four ELLs to capture their personal experiences and perceptions about using READ 180 as an English learning program. The student interview protocol is included in Appendix H and the observation protocol is found in Appendix I. The first set of student interviews focused on students' perceptions of (a) their experiences with using computer technology; (b) the ways in which using READ 180 engaged them in reading English; and (c) its overall value to them as ELLs. The follow up interview questions emerged from my observations of their behaviors while using READ 180. In addition, I conducted an open-ended interview with each participant during his or her lunch break as a strategy for developing rapport with the participants.

The Interview Process

A total of six individual, semi-structured interviews were conducted with the four participants from the end of November 2008 to the end of January 2009. These interviews

were conducted at either a table outside of the classroom during the classroom hour or at the school cafeteria during the lunch break, depending on participant's preferences. The initial interviews began with participants' personal introductions, including their immigrant experiences and their uses of technology at home. Next I asked about their experiences using READ 180. The follow-up interview questions were generated during the observation visits and the questions that emerged from the data. I created the interview questions one or two days after the classroom observations. These questions were based on my observations of the participants' interaction with the software and the reading materials. In addition to the semi-structured interview, I used open-ended interviews as a way to understand students' literacy practices both in- and out-of-school, as part of the contextual background. I had an open-ended interview with each of the participants. I also had lunch with some of the participants individually and while they were with their friends. Because the purpose was to establish rapport with them by understanding their school life not related to the focus of READ 180, I did not record the open-ended interviews.

Interviewing the ELLs created both opportunities and challenges for my research. One of the main challenges I faced during the interviewing process was that I had to conduct all the interviews with my participants, except one, in English, which was not the first language for either my participants or me. Occasionally, I had some difficulties understanding Marco's English during the interviews. On the other hand, I had no difficulties understanding Eva and Isabel who were very fluent in English. I was able to conduct interviews with one of my participants, Xiao Nan, in his native language, Mandarin, because I also speak Mandarin Chinese. The challenges of working with adolescents also created an opportunity for me to experience how sophisticated these teenagers were in their thinking. As the researcher is the main instrument for conducting a qualitative research study (Glesne, 1998), it became crucial to reflect on the strengths and challenges I had in the interview process. In the following

section, I will describe my interview experience with each of my participants, as Eva, Isabel, Marco, and Xiao Nan (alphabetically sequenced). Each interview lasted approximately 30 minutes and consisted of conversations about their experiences with using READ 180. The interview protocol is listed in Appendix G.

By the time the research was conducted, these four participants, Eva, Isabel, Marco and Xiao Nan, were eighth graders who were in the same ESOL class using the READ 180 intervention. Eva, Isabel, and Marco were native Spanish speakers while Xiao Nan was the sole native Mandarin speaker. Eva and Isabel came from Puerto Rico, a territory of the United States, and both had been in the U.S. for more than four years at the time of the study. Marco came from Chile 18 months ago. Xiao Nan came from China nine months ago. In the next chapter, I will provide a more detailed demographic description of each participant.

Interviewing Eva

Interviewing Eva was a very collaborative experience as she answered my questions with her soft, fluent English, very freely and openly. She did not talk much, but her answers indicated that she could articulate her thoughts well. Although she was willing to answer my questions, I felt that she kept me at a distance in a way that was representative of her age. For example, she was not interested in meeting with me during her lunch break because she always had her lunch with friends. One day I decided to join Eva and her friend, who was also from Puerto Rico, while they were having lunch. My questions to them were related to how they perceive the differences between Puerto Rico and the U.S., such as their schooling experiences. Although she answered my questions, I could sense that she was not interested in having a conversation with me because she was with her friends. As I reflected on my teenage memories, I remembered that socializing with my friends exceeded all other matters, particularly those related to things that adults felt were important.

I understood that being with her friends was more important than answering a researcher's questions and I felt I had intruded into her social realm. However, later that day, while I was in Ms. Anderson's class observing students, Eva was working on a synonym worksheet. She approached me and asked me to help her for the first time. I felt that I had apparently developed some rapport with her during my attempt to join her social circle.

Interviewing Isabel

With her fluent English, Isabel talked very openly during the interviews. Unlike some teenagers who are not good at answering open-ended questions such as "how" and "why," Isabel was able to articulate her responses in a way that explicitly expressed her preferences and opinions. Although there were times that she simply said 'Yes' or 'No' to my questions, the kind of answer one might expect from a 13-year-old, Isabel was willing to generate her stories by telling me about her personal experiences and preferences. Her answers were very straightforward. Although she was very friendly to me, I consciously used strategies to establish rapport and friendship with her. For example, most of the books she read in Ms. Anderson's class were not from the READ 180 program; Isabel read several popular teen novels, such as *Twilight* (Meyer, 2005) and *The Sisterhood of Traveling Pants* (Brashares, 2003). I purposefully did research on these books in order to engage Isabel in more conversations. I also self-disclosed my dislike for the movie *The Sisterhood of Traveling Pants* when she told me that she did not like the book. She was very excited to know about my feelings and that experience helped me to continue to develop rapport with her.

Interviewing Marco

Interviewing Marco was a very playful and collaborative experience, and I felt that he treated me more as a friend than as a researcher. Compared to the other three participants, I found it less challenging to interview Marco because he talked very openly with me about his personal stories. For example, he showed no hesitation in sharing his critical thoughts on

immigrant issues, his personal struggles with some of his academic work. The way he used his teenage language, such as "thingy" (thing), made me feel as if I was a friend of his. In the beginning of my data collection, while I was doing classroom observations, Marco would approach me and ask me if I would like to interview him. When he described his reflections on one of the books that he had read, he asked me if I had read that particular book or seen the movie.

One of the challenges I had with him was trying to understand his English because he had a very strong Spanish accent. This is not unusual, and in fact it is part of the natural process of language acquisition for many bilingual learners. There were a few occasions that, because I did not understand Marco's accent, that I had to ask him to spell out words. For example, Marco would say "Juck" instead of "Yuck" with his Spanish accent.

Another challenge with Marco's interviews was that they were discursive and created some difficulties for me in understanding his meaning. For example, the following excerpt indicates that I was not able to interpret his meaning as I tried to ask him about the ways in which READ 180 helped him understand history.

(Vivian= the researcher Marco= the participant)

Vivian: Does it [READ 180] help you understand the U.S. history?
Marco: Sometimes yes. Sometimes no.
Vivian: What do you mean "Sometimes yes. Sometimes no"?
Marco: I sometimes got confused.
Vivian: What confuses you?
Marco: Sometimes the teacher shows you one thing and then READ 180 tells you another thing.
Vivian: Can you give me an example?
Marco: I don't know. When I was watching a video about [it in] READ 180, and they say, like, (3). They were like, they were talking about...(2) Oh. No. Now I get it. That was in the past. I forget those videos, way longer. Never mind. 'Cause there is one time and right now...There are a lot of legal immigrants before. I'm kind of confused.

I was trying to ask for clarification based on Marco's words and requesting an example but I still could not understand him. In the end, I realized that he had mixed up other experiences as he said "Never mind" and "I'm kind of confused." However, I was not familiar with the

middle school context, and that may have limited my ability of understanding his point. As an alternative, he tried to indicate that READ 180 expanded his knowledge by challenging his perceptions. Although some of Marco's narratives were difficult to understand, I appreciated his patience when sharing his knowledge with me and with his candid responses to my questions.

Interviewing Xiao Nan

Xiao Nan was the only Chinese-speaking student in my study. As a native speaker of Mandarin Chinese, I assumed that I was "a cultural insider" with him as we shared the same Chinese culture. I expected that he would be more willing to tell me about his stories. However, I soon realized that my belief was a fallacy as I conducted my first interview with him. Xiao Nan's answers were short and he was openly resistant to some of my questions, particularly when I asked him about his personal experiences. For example, in the first interview, when talking about the *Jane Eyre* excerpt from READ 180 that he read, he just said "something does not fit me." Then I continued to ask him what he meant by that. However, he changed his response by saying "It's Okay. The book is okay. It's good."

Another example of Xiao Nan's unwillingness to be interviewed by me was that he was resistant to responding to my questions about "fitting-in" culturally in the third interview. This was in response to an article that he had read about "fitting in" to American culture. After I asked him a question, there were several long pauses when he uttered "U-Hm. (3) My thought (8)…hm...I don't have much feeling (after reading "fitting-in") (6) [I want to] learn, learn English well." (嗯。(3) 我的看法。(8)嗯，沒有什麼感覺。(6) 好好學習，好好學習英語。) I felt as if my question had upset him and caused him discomfort.

Being aware of his resistance (Beaunae & Wu, 2009; Vitus, 2008), I decided to move Xiao Nan's interview time from the formal setting of the classroom to the relatively informal setting of his lunch break. Although he and his mother had signed the Chinese Informed

Consent, he expressed curiosity about my study during our third interview and began to ask me: “Do you make READ 180?” “Why do you do this kind of study?” Our conversation became more casual and he also showed his curiosity about me by asking me questions about my research study and my life in the United States. I asked him if there was anything he would like to add. Previously he had just said “No.” But, in our final interview, he responded to the question “Is there anything you would like to add?” with “I don’t know. What else do you want to know?” I was very pleased with his response because I perceived it as an indication that I had established rapport with him and that he had become more comfortable sharing his knowledge with me**.**

Observation: The Secondary Data

Adler and Adler (1994) characterized observation as “the fundamental base of all research methods” in any of the social sciences (p. 389) as it allows researchers to capture the complexity of a natural social setting. According to Marshall and Rossman (2006), the process of observation “entails systemic noting and recording of events, behaviors and artifacts (objects) in the social setting chosen for study” (p. 98). They also note that it is important for researchers to conduct observations so they can take notes not only about the setting of their research but also of the “body language and affect” of the participants (p. 99). Eder and Fingerson (2003) suggested that a brief period of field observation preceding interviewing could create an advantage for researchers, not only to provide a rich description of the natural context but also to establish rapport with adolescent participants.

Observation in a constructivist framework invites a researcher to explore the ways in which participants’ realities are constructed. However, the researcher should be aware of not making subjective interpretations of participants’ actions. As a result, I considered observation as secondary data to the data from interview questions, which I designed to ascertain how the subjects’ realities were constructed through their daily routines; an

elaboration of their actions. In this study, observation provided an opportunity to see how the ELLs have actually learned with READ 180 so that interview questions could be well framed to closely relate to students' everyday experiences. The direct observations were used in order to capture the everyday practices that ESOL students employed while using READ 180 and provided a contextual description of the study being researched (see Chapter 4). The observation protocol used with the participants is located in Appendix I.

The Observation Process

I chose to do observations because it provided an opportunity for me to better understand the study context by seeing the everyday activities that each ELL was engaged so that interview questions could be better framed. Observations took place in a middle school ESOL classroom during the time that READ 180 was being used, four days a week, from early December 2008 to the end of January 2009. The total observation time was 30 hours. During each visit I observed two of the four participants in order to generate interview questions. I also created a schedule for myself in order to document my observation and interview plan (see Table 3-1). The elements that I observed included participants' actions while using READ 180 and the ways in which they were engaged or disengaged in reading (Appendix H). I created onsite field notes during my observations. A sample of my expanded field notes is included in Appendix I. After writing abbreviated observation notes in class, later that same day, I wrote the expanded field notes to reflect on my observations and to generate interview questions for the next interview.

My observations included both the class and the software program and the four participants. My observations of the class included the daily procedures and the classroom structures, as well as the use of the software program, as indicated in the next chapter. For each participant, I observed the tasks that they were doing, such as the "Zones" of READ 180 and whether or not they were reading audio or paperback books. The interview questions

were designed to ask the participants why they chose what they chose to read and how they reflected on the different tasks of READ 180. Second, I observed their acts of engagement (e.g., staying focused on task) and/or disengagement (e.g., talking with others, looking at other students' computer screens, or putting a book back without finishing it) of each student. I asked them to make meanings of these actions that I had observed. Third, I also documented my concern about their behaviors or words, if I was not sure if they were engaged in learning. For example, I noticed that Marco sometimes talked to himself while he worked at the computer and I asked him about this behavior.

Unobtrusive Data: The Secondary Data

Hatch (2002) described unobtrusive data as "artifacts, traces, documents, personal communications, records, photographs, and archives" (p. 117). Unobtrusive data can add to the richness in portraying participants' values and beliefs as they have the possibility of offering insights into the ways that people have constructed and experienced their lives (Hodder, 2000). Thus, the unobtrusive data were another source I drew from in order to supplement my interview data. Documents were collected from the following sources: students' work related to READ 180, which included reading logs and worksheets, and the publisher's descriptions of the READ 180 software program from the Scholastic Inc. website. Following a constructivist perspective, the use of unobtrusive data from students, including student reading logs and the work being produced from using READ 180, had the potential to illuminate the ways in which students made meanings of their learning. In this study, I collected students' work (Appendix J), including reading logs and worksheets. In addition, I collected materials that were posted on the publisher's website, including a list of topic CDs (Appendix K) and audio and paperback books as supplementary sources for interview questions. These materials served as supplementary sources for interviews by asking ELLs questions related to the publisher's information. For example, I asked them to comment on

the READ 180 materials that they had read. I also asked my participants about the worksheets and reading logs to comment on the relevance of them with respect to their cultural backgrounds.

A Recapitulation on the Data Collection Process: Reciprocity

Reciprocity is identified as an approach to equalize the power imbalance between the researcher and the researched by giving something in return to participants (Zigo, 2001). In this study, I used this strategy in order to establish rapport not only with my participants but also with the teacher who gave me permission to observe her class. To establish rapport with my participants, I prepared a holiday card with a bookstore gift card and had lunch with each of my participants.

Although the teacher was not my participant, I expressed my appreciation for her by volunteering to be her teaching assistant on the days that I visited her class. I helped some of her students with the worksheets. During the research data collection period, I helped her supervise students who were performing or practicing for an interview play for the school's multicultural week. There was also one occasion, while I was in her classroom, that she had difficulties displaying photos through her computer. As I helped her solve the technical problem, Ms. Anderson was grateful for my assistance and I established some rapport through this reciprocity.

Data Analysis

Data analysis is a systematic way to analyze the data that a researcher has gathered. For a qualitative researcher, it involves making decisions about what and how to represent data (Grbich, 2007). A rigorous data analysis, as part of the methods for an investigation, must align with the theoretical perspective of the study (Hatch, 2002). While several common data analysis techniques (e.g., narrative and grounded theory) fit into the

constructivist framework, grounded theory was more appropriate because little is known about how ELLs use the READ 180 reading program.

Grounded theory data analysis has been commonly used by qualitative researchers (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1998). The different elements of grounded theory data analysis such as coding, categorizing, and memo writing reflect the inductive, analytic, and interpretive nature of qualitative research. Strauss and Corbin (1998) characterize grounded theory as a way to inductively obtain phenomena from a research study. When using grounded theory data analysis, it is possible to collect, discover, and analyze data related to the research study in a systematic way. Through such methods, themes emerge from the data and those themes lead to the development of a theory.

Constructionist grounded theory is concerned with understanding the studied phenomenon. A constructivist oriented researcher using grounded theory "places priority on the phenomena of study and sees both data and analysis as created from shared experiences and relationships with participants" (p. 130).

Charmaz (2006) stated:

- Conceptualize the studied phenomenon to understand it in abstract terms
- Articulate theoretical claims pertaining to scope, depth, power, and relevance
- Acknowledge subjectivity in theorizing and hence the role of negotiation, dialogue, understanding
- Offer an imaginative interpretation (p. 127)

Additionally, when using grounded theory to analyze interview data, it should be noted that:

> A constructivist would emphasize the participant's definition of terms, situations, and events and try to tap the participants' assumptions, implicit meanings, and tacit rules. An objectivist would be concerned with obtaining accurate information about chronology, events, settings, and behaviors (Charmaz, 2003, p. 317)

Following a constructivist perspective combined with grounded theory methods, the purpose of this study was to understand the relationships between the perceptions of my ELL

participants using the READ 180 reading program and the statements of program's effectiveness for ESOL students supplied by the publisher, Scholastic, Inc.

As for the role of the researcher, Charmaz (2006) explained that the use of constructivism encourages the researchers' self-reflection with respect to their interpretations of the data as well as those of the research participants. Thus, constructivist grounded theory researchers ideally are self-reflective about their constructions, preconceptions, and assumptions that inform their study (Charmaz, 2003).

In the process of grounded theory, data analysis is imperative to break down the data by phrases or "meaning units," code the meaning units, and then group the codes into concepts in order to create a theory (Strauss & Corbin, 1998). Charmaz (2006) described the three-stage coding process: initial, focused, and selective codes. The initial coding process involves breaking down the raw, transcribed data into codes and renaming them as closely as possible to the original meaning of the transcription. The focused coding process involves a set of procedures of synthesis and explanation of the larger selections of the data (Charmaz, 2006). The purpose of focused coding is to rearrange all the initial codes into categories, in which constant comparison techniques can be applied. The selective coding process, or the final stage, is where the data are given specific properties and categorized into larger themes (Charmaz, 2006). The categories are conceptualized and refined for theory development.

One of the ways that the reflexive process of analyzing data takes place is through memo writing. Memo writing is a crucial stage of grounded theory analysis regardless of the specific theoretical perspectives that the researcher holds. Good memo-writing helps lead the researcher to an early phase of developing her findings. In memo writing, researchers reflect on their data while collecting, transcribing, analyzing, and coding it to trace their thoughts as they are developing their theories.

Data Analysis Process in This Study: The data analysis process co-occurred with the data collection. I used memo writing to reflect on my data analysis. I revisited the same interview question with one participant when he or she had not given me enough information; or when I found a theme emerging from the responses of another participant. Then I began with transcribing the interview data by following the transcript convention (Appendix L). All interview data were transcribed by the researcher. I converted my transcribed interviews from a word processing program to a spreadsheet program, which allowed me to do coding, retrieving, and sorting of my data.

Issues of translation needed to be attended to as part of this cross-cultural research study (Tsai, Choe, Lim, Acorda, Chan, Taylor, et al., 2004). As Xiao Nan and I were both Chinese native speakers, we used code-switching, using English phrases or terms as an alternative, during the interview to ensure that we did not misinterpret the one another's meanings of words. As an English-Chinese bilingual speaker with knowledge in ESOL/bilingual education, I had the confidence to translate Xiao Nan's data from Chinese to English accurately. To ensure that the translation was both accurate and meaningful, I not only included the original Chinese text but also had my translation reviewed by an English native speaker for analyzing data.

Making comparisons occurred in the process of collecting and analyzing data. In the data collection phase, I asked each participant questions in relation to the literature. In the data analysis phase, I grouped the codes that shared similar ideas. The comparison was constantly refined until the core category was formed.

I conducted the first-stage of open coding for the participants' transcribed interviews. All the transcripts were read several times while I tried to identify the meaning units line by line. The strategies I used to label codes were (a) to summarize a code in relationship to the meaning unit of the text with respect to my research focus or (2) to use "In vivo" codes,

(participants' actual words) as a label. The number of open codes totaled more than 900 for the four participants. However, based on my memos, there were some data that were transcribed but not coded because they fell into the following categories: (a) contextual background (particularly in the first round of interviews that are described in Chapter 4); (b) Brief answers, which were too vague to create meanings, such as "Yes," "No," or "I don't know;" (c) Participants' clarifying questions, such as, "What do you mean?" and (d) Participants' narratives that did not relate to the research focus, such as the description of other reading materials.

In the second-stage of focused coding, I constantly compared all of the open codes in order to combine codes that shared the same theme. I eliminated some open codes that I considered trivial or unrelated to the actual focus of the study, such as the description of another reading software program Reading Counts. I also eliminated some of the data that were related to the teacher in order to narrow the research focus to the perceptions of the ELLs and their interactions with the READ 180 curriculum materials.

In the third-stage, selective coding, I continued to make comparisons between focused codes that were alike or related in order to categorize them into selective codes. For example, some of the major selective codes that emerged from the data were, "the lack of culturally relevant materials" or "the need for conversational learning" and so on. I eliminated codes that did not fit into the aforementioned selective codes since they did not fit into my theory or the purpose of the study. Appendix M is a coding trail that shows the three-stage coding process; moving from the initial codes to the selective codes.

Meanwhile, I also used memos for two purposes: One was reflectional to document the observed events during the data collection process; the other was analytical to document the themes I found important and wanted to explore further. This helped me look for gaps in the data I found within and across my participants and created memos to document the

explanation of each code. The final theory is an integration of all of the categories, including the selective codes and focused codes. In Chapter 5, I described the emergent theory, named Differentiated Learning, in relation to three category, culture, language, and technology, along with the properties and dimensions. The sub-headings were the selective codes and the words in bolded text are the focused codes.

Subjectivity Statement

My research on READ 180 and ELLs was inspired by a research project I conducted in a Curriculum Materials and Development course in March 2007. This was the first time I had been exposed to the READ 180 program and the ways in which teachers working with two very different populations of students used it in their curriculum. I spoke to two teachers, Mrs. Pratt (pseudonym), the special education teacher, and Ms. Dickenson (pseudonym), the ESOL teacher, regarding their perceptions and experiences with using READ 180. After a two-hour observation with Mrs. Pratt, a veteran teacher of 28 years, I found that she was pleased to tell me in an interview that READ 180 had helped her students who were struggling readers. She was eager to share how "amazing" READ 180 related materials were to the needs of her students. At the same time, I saw that many of her students were listening independently to its audio books with their own recorder.

After my experience in Mrs. Pratt's special education classroom, I visited Ms. Dickenson's ESOL classroom where I saw a very different representation of READ 180. Perhaps because she was a novice ESOL teacher and passionate about her work, Ms. Dickenson found it challenging to integrate the READ 180 program into her ESOL curriculum. From her experiences of working with ESOL students, she contended that (a) ESOL students for the most part liked to read and that (b) ESOL students found reading valuable for learning English and they did not need the READ 180 topics in order to attract them to the content.

Mrs. Pratt's and Ms. Dickenson's competing narratives about their experiences with using READ 180 inspired me to explore the use of READ 180 for ELLs. The publisher of READ 180 claimed that it was designed for both struggling readers and ELLs. After my interviews with the two teachers, I began to question whether a reading program, originally designed to help struggling readers, could possibly meet the needs of ELLs. I asked myself: How different are the needs of struggling readers and ELLs? How are they similar? These questions continued to intrigue me and thus became the impetus for this research study.

My interest in studying READ 180 with respect to cultural relevance has also had a profound influence on this study. As I continued to explore the specifics of the READ 180 program in the Fall of 2007, I read some of the materials offered as part of the curriculum. One of the READ 180 resources I read was an rBook about "The New Americans." This lesson was designed to introduce ELLs to the topic of immigration. On the cover page of the book was a picture of people with dark eyes and dark hair laughing with an American flag behind them. I found this image disturbing. My sensitivity as an international student and member of a non-Caucasian group in the U.S. caused me concern about the implicit message of assimilating newcomers into American society. Furthermore, my doctoral training in the ESOL program has sensitized me to question the idea of "assimilation" conveyed to me, as a reader and as an immigrant (or a visitor) of the United States. This experience inspired me to critique the cultural relevance of READ 180 for English Language Learners.

My subjectivity also informs my interactions with adolescents. As I spent time interviewing and developing rapport with my four young participants, I reflected on the time when I was a 13-year-old searching for peer affirmation and life values. One of the darkest periods of my life occurred when I was 13 and was both frustrated by trying to establish relationships with my classmates and felt pressured by my academic performance. Recalling myself as a teenager with all my conflicting feelings and emotions, I was both empathetic and

curious about how hard it would be for my teenage participants to study in the U.S. with limited English proficiency. I wondered how they might feel like cultural outsiders— how difficult it would be for them to try to learn to fit into the microcosm of their schools as well as to the macrocosm of American society.

Validity

Validity in any research project is crucial as it challenges how researchers claim that they know what they know. It requires researchers to ensure that the procedure of the study that they use is rigorous and that their findings and conclusions are credible (Denzin & Lincoln, 2005; Hatch, 2002). Qualitative research does not assume that there is an objective representation of the reality of participants. This is what Denzin and Lincoln claimed as a "crisis of representation" (1994, p. 9). For qualitative research, validity needs to be considered as the integration of theoretical perspectives and the methods being used. It also requires the researcher's awareness of her work through the data collection and analysis phases (Gergen & Gergen, 2003). In addition, Whittemore, Chase, and Mandle (2001) indicate that the primary criteria for evaluating a qualitative study are "credibility, authenticity, criticality, and integrity" (p. 522). Credibility and authenticity are concepts concerned with the accurate representation of participants' perceptions, whereas integrity is more concerned with the researcher's self-awareness of bias and assumption.

Negative case analysis and member checks are essential to enhancing the validity of a constructivist study because they allow the researcher and the researched to co-construct their meanings. The view of negative case analysis helps a researcher seek the explanation for her data as it creates both opportunities and threat to the validity of her study (Emigh, 1997). The use of negative case analysis or disconfirming evidence, from the lens of the researcher, is essential for the constructivist paradigm because the realities are complex and multiple (Creswell & Miller, 2000). The examination of negative case examples also has been

implemented in grounded theory studies through the constant comparison methods in order to look for any inconsistencies in the data (Glaser & Strauss, 1967). The analysis of negative case methods can expand the researcher's view of the focus of the study and allow new dimensions to emerge.

Member checking ensures that the data findings are credible by having the participants validate them. According to Lincoln and Guba (1985), member checking is the most essential technique that a qualitative researcher has for establishing credibility. At the same time, member checking has the potential for gathering additional information to enrich the data. To conduct member checking, I presented the transcripts along with my findings to my participants to elicit their feedback in March. The four participants agreed with the way I presented their ideas in the findings. In addition, they provided comments on the analysis of the data. For example, although Eva thought that being a Puerto Rican is a "privilege" compared to that of other immigrants, she experienced the same challenges as did other immigrants. I also asked participants for clarifications as I noticed some inconsistency within a participant's responses or vague comments in the data.

In addition, I used triangulation to enhance internal validity. Triangulation refers to the use of different data sources to create a point of convergence for all of the data. Morse and Richards (2002) simultaneously critiqued and explained the misuse of the term triangulation in the following passage:

> *Triangulation* refers to the gaining of multiple perspectives through completed studies that have been conducted on the same topic and that directly address each other's findings. To be considered triangulated, studies must "meet"- that is, one must encounter another in order to challenge it (for clarification), illuminate it (add to it conceptually or theoretically), or verify it (provide the same conclusions). (p. 76, emphasis in original)

The purpose of triangulation should be the expansion of the views of data to see if any incongruence occurs. Therefore, I used the data from interviews, observation, documents,

field notes, and memos in order to substantiate the research findings through multiple perspectives.

To conduct a peer review, I solicited the advice from two colleagues who have conducted grounded theory studies - currently or previously - and had solid professional knowledge in qualitative research. Specifically, I asked these colleagues to comment on my data collection and analysis processes and check for problems or inconsistencies. I also presented my data analysis process and findings to a qualitative support group, comprised of methodology professors and graduate students at the university, for feedback on my data analysis procedure. The feedback I received enhanced my understanding of interpreting my data and helped me to validate my analyzing procedures.

Limitations

While I acknowledge that my responsibility is to ensure the best conditions for my research, there are some significant limitations with respect to this study in the process of participant sampling, data collection, and data analysis. The following descriptions will inform the readers in order to interpret the findings and conclusions I have made.

Participant Sampling

The best criterion for doing grounded theory studies is to recruit a homogenous group. In my case, this would have required me to recruit participants that were all Chinese native speakers so I could have theoretically had an insider's view of both language and culture. However, given the fact that Chinese-speaking ELLs make up less than 5% of the ELL population in Florida, it would have been impossible to recruit four Chinese-speaking participants in the same class, using the READ 180 program given the limitations of doing a doctoral dissertation.

Data Collection

The other limitation of the study is related to the ESOL class's use of READ 180. The teacher integrated READ 180 into her class curriculum in November 2008. Although I focused on the participants' current experience using the program, the findings and conclusions of this study could have been quite different if the class had been using READ 180 for a lengthier period of time. This is especially true when considering the diverse topics that READ 180 provides. For example, when I asked participants to reflect on the ways in which READ 180 helped them with content areas, such as social studies, math, and science, Isabel told me that she did not know how to relate READ 180 to other subjects. "I don't know. I haven't really gotten to the science of READ 180 yet. So far, I only got into the sports." When I asked about social studies, she said "It's not something that I am [learning] right now."

Data Analysis

As the teacher takes part in the READ 180 reading program's three rotations, the teacher's influence is significant in terms of the material selection and the implementation of READ 180. However, due to the large amount of data collected from the six interviews and the fact that the teacher was not the study participant, I eliminated the data related to students' descriptions of the teacher's involvement with READ 180. This way I focused solely on students' perceptions of the READ 180 materials.

Conclusions

In this chapter, I used a qualitative research paradigm with a constructivist lens to explore the perceptions of ELLs' use of READ 180. Constructivism rejects the idea that there is an objective truth in the external world waiting to be discovered. This constructionist epistemological perspective guided this study through the voices of adolescent ELLs. Included in this chapter were the data sampling procedures, methods, collection and analysis

techniques that were used to conduct the study. I also addressed the means by which I establish validity for conducting this study and the limitations of the study that occurred in the recruitment, data collection, and data analysis stages.

CHAPTER 4
CONTEXTUAL BACKGROUNDS

Introduction

Discussion of contextual background in a qualitative study is not simply a report of an act but rather an explanation that provides understanding for the meaning of an act. This chapter will provide an understanding of the context in which the research took place with READ 180, including the contextual backgrounds for both the research setting and the READ 180 component description. While I aimed to describe the study context, my description was accompanied by my subjective interpretation.

This chapter is structured in three major sections: (1) the research setting, (2) the four participants, and (3) the READ 180 components that were used by the students in the ESOL class. The research setting includes the Sunshine Middle School, the ESOL classroom, and how the ESOL teacher incorporated the READ 180 program into her curriculum. The descriptions came from my 30-hours of classroom observations and documents I collected from the teacher. Next, I describe the participants' contextual backgrounds, which were primarily grounded in both semi-structured and open-ended interview data and supplemented by my classroom field notes. Finally, the READ 180 component descriptions were the documents I collected from the Scholastic Inc.'s READ 180 website.

Research Setting

The Sunshine Middle School

The Sunshine Middle School (pseudonym), comprised of approximately 900 students, was a public school located in north-central Florida. According to categories used by the State of Florida, the student diversity backgrounds were White, Black, Hispanic, and Asian. However, it should be noted that such categories are too generic to represent student diversity. According to the Florida Department of Education's school accountability report, the minority rate in Sunshine Middle School was 49% in 2007-2008, showing a slow increase

since 2002. In addition, 43% of the student population at the Sunshine Middle School received free and reduced lunch in 2007-2008. (This percentage has consistently remained over 40% since 2002). Currently, the Sunshine Middle School offers two ESOL courses for English Language Learners (ELLs), one for beginning and one for intermediate- level. The school classified each student according to his/her level of proficiency;

As stipulated by the federal No Child Left Behind act of 2001, Sunshine Middle School was labeled a Grade A school for two consecutive academic years from 2004 through 2006. However, it did not meet the Adequate Yearly Progress (AYP) in the two consecutive academic years from 2006 through 2008.

The school purchased the READ 180 package for teaching in 2004-2005 along with the computer equipment for classes, one of which is Ms. Anderson's intermediate-level ESOL class.

Ms. Anderson's ESOL Class

Ms. Anderson (pseudonym) was the certified ESOL teacher instructing two classes of ELLs at the Sunshine Middle School. However, she only integrated READ 180 into her intermediate -level class instruction. She explained that the content of READ 180 may be too difficult for beginning ELLs. The 17 students in her intermediate-level class are culturally and linguistically diverse, coming from 11 countries or regions (see Table 4-1): Chile, China, Egypt, El Salvador, Honduras, India, Mexico, Puerto Rico (U.S. territory), Turkey, Ukraine, and Vietnam. Nine languages were spoken by these students as their first language, including Spanish, Chinese, Arabic, Gujarati, Tamil, Turkish, and Ukrainian. In this study, I specifically focused on the eighth graders and recruited the four participants: Eva, Isabel, Marco, and Xiao Nan.

Table 4-1. Student demographics of Ms. Anderson's intermediate ESOL Class

Country/Region	Languages	# of students	Grade
Chile	Spanish	1	8
China	Chinese	1	8
Egypt	Arabic	1	6
El Salvador	Spanish	1	7
Honduras	Spanish	1	6
India	Gujarati, Tamil	3	6,7
Mexico	Spanish	2	6
Puerto Rico (U.S. territory)	Spanish	3	8
Turkey	Turkish	1	7
Ukraine	Ukrainian	1	6
Vietnam	Vietnamese	1	6
TOTAL		17	

The Physical Environment of the ESOL Classroom

Ms. Anderson's ESOL classroom (see Figure 4-1) provided a learning environment for culturally diverse students who were learning English. On the top of the whiteboard, there were 20 paper characters dressed in costumes from different countries, such as Mexico, Japan, and Korea. In addition, there was a world map displayed on the window so that students could easily locate a country if they were interested. When Chinese New Year came at the end of January, I observed Ms. Anderson celebrate Chinese New Year with cultural objects, such as Chinese paintings, red envelopes, and characters decorated on the bulletin board.

The ESOL classroom contained different forms of educational resources, including technological tools and printed materials, for ELLs. It was equipped with seven DELL computers, six for students and one for the teacher. These computers were purchased by the school in order to run the READ 180 software package in the year 2004-2005. Each computer was equipped with Windows XP operating system and the READ 180 software program. Student computers had limited Internet access.

Other technology in the classroom included a Lexmark printer, a TV that hung in the corner, an overhead projector, and a multimedia NetTV monitor with DVD and VHS players. The multimedia TV functions as a computer. During the data collection period, I observed

Ms. Anderson using the multimedia TV to display photos taken at an event. I also watched movies and video clips that students made for the school's multicultural week.

Posters from READ 180 program were displayed on the walls of the classroom. The posters included the READ 180 instructional model and a poster of the READ 180 audio books and paperback books of Stage B (for middle school). Additionally, READ 180 materials and books were on the shelves in the classroom for students' easy access.

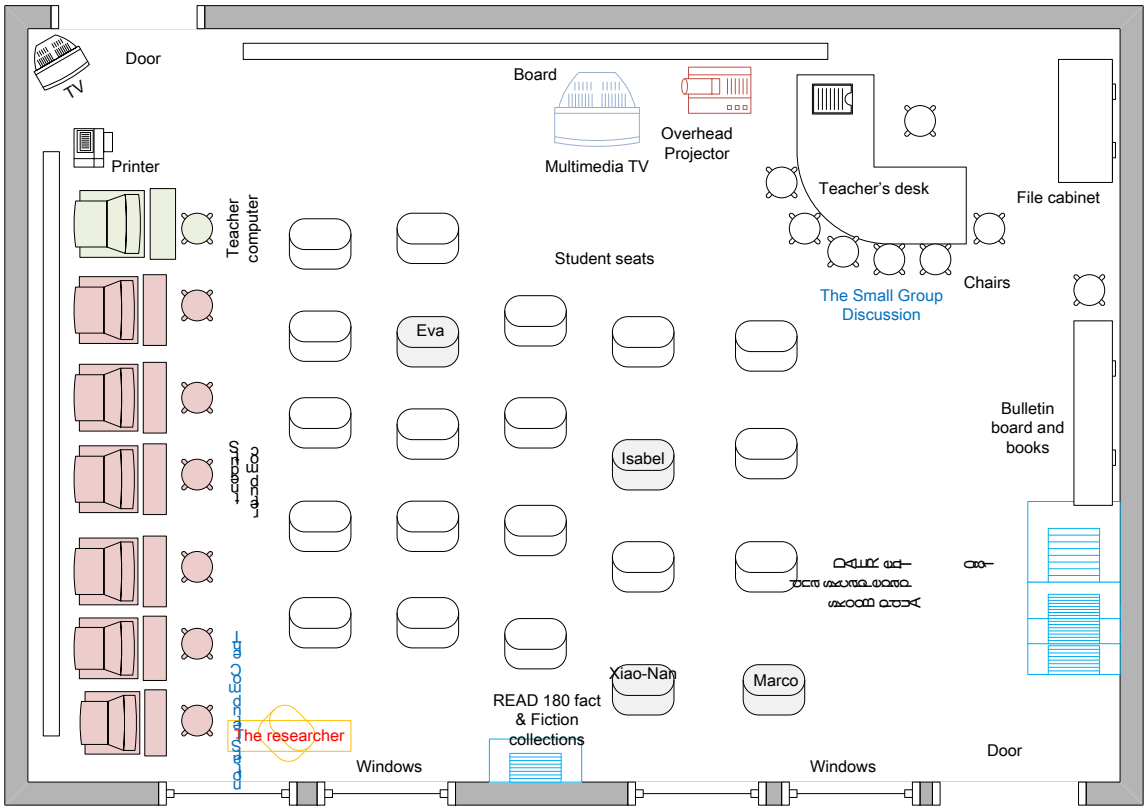


Figure 4-1. The physical environment of the ESOL class

Descriptions of Participants

The four students (see Table 4-2) in this study included Eva and Isabel from Puerto Rico, Marco from Chile, and Xiao Nan from China (all names are pseudonyms). The students shared some commonalities: they were all 13 years old, enrolled in the 8th grade, came to the U.S. with their parent(s), and received ESOL services from Ms. Anderson during the time this study was conducted. All participants received free or reduced lunch. The

following section describes the participants, including their respective lengths of stay in the U.S., their self-reported family background including literacy practices as well as home use of technology, and my observations of their personality traits. The following section describes each participant alphabetically by first name.

Eva

Eva emigrated with her family from Puerto Rico to the U.S. five years ago. She was the eldest child with two other siblings—one brother and one sister, both eight-years-old. Her father worked as a communications teller and her mother was a housewife who formerly worked as a nurse. Her parents were separated and she lived with her mother and her aunt's family. When Eva came to the U.S., she barely spoke English so her mother hired a tutor to help her. Eva enjoyed living in the U.S. and said she felt the educational quality was "more advanced" than Puerto Rico.

Eva "liked to read" and read "a lot" at home. Currently, she was re-reading *Twilight* (Meyer, 2005). She considered herself a serious reader because she enjoyed reading very much. The topics she enjoyed most were love, mystery, and fiction. She was not interested in non-fiction.

Eva used the computer at home for non-academic purposes but did not use it very frequently. She said, "Only [when] I have nothing to do, I use the computer." She explained that she only used the computer to check email, play video games, such as Play Station, search via Google, look at photos, and listen to music. For example, she had done some research on "biography and history" and "information about different countries." She also played online games she described as "Like little cartoon that you get to [put] the clothes on them and you move them around. You have to earn points so you can buy stuff."

Eva looked mature for her age perhaps due to her long curly hair. She sometimes wore earrings and makeup as well. She was relatively quiet in Ms. Anderson's class and spoke

very softly. During the lunch break, she ate with a girl who also came from Puerto Rico and was enrolled in Ms. Anderson's beginning-level class.

Isabel

Isabel emigrated to the U.S. from Puerto Rico four years ago. Her father came from Puerto Rico and her mother was from the Dominican Republic. Her father passed away seven years earlier and her mother and she came to the U.S. for economic and educational opportunities: "The economy is better over here [in the U.S.] and my mom wants a better job. They want us to study here because she thinks it's [the education] better."

Isabel enjoyed reading long chapter books. For example, she was very interested in adolescent popular literature, such as *Twilight* (Meyer, 2005). On average, she read at least five books a week, depending on the size of the book. During the interviews, she liked to share her reflections about the books and articles she read. She told me that she had finished reading the whole collection of *Twilight* (Meyer, 2005) and she was very interested in sharing the story she read with me.

Isabel used the computer at home mainly for academic purposes and used it very infrequently. When I asked her whether she played games online, she said that "I get tons of homework. I don't use that much." She used the Google and Yahoo search engines in order to do research and read articles. As she said, "I like to research and know some stuff." She did not use the computer for social networking. She had never used computer software such as READ 180 in Puerto Rico but she enjoyed using it in Ms. Anderson's class. During my class observations, there were times when Ms. Anderson did not know how to connect her laptop to the TV in order to display some photos she took for the students in a school event, but Isabel was the one she called on for help.

Marco

Marco came to the U.S. from Chile with his parents in August, 2007 so that his father could pursue a doctoral degree at a nearby university. The family planned to stay in the U.S. for at least four years, the time required for his father to complete the degree. In a similar regard to Eva, Marco was also the eldest of four children, with three other siblings, one sister (seven years old) and two brothers (five years old and two years old).

Marco's father was concerned with Marco's academic performance and had high expectations of Marco. When he learned that he got 70 out of 100 from a Reading Counts quiz, he said to me: "It's not good. If I said it to my dad, he would get really mad. He would say 'No, you have to get straight As.'" There were times in the interview process that he talked about how his father helped him with reading, such as making him word quizzes to help him learn English.

Marco liked to read culturally relevant books as he told me that he liked to learn about Latino culture. He also said he liked "graphic novels and all kinds of books except [for] the fantasy ones. Fantasy does not get me along with the reading." He continued, "'Cause it [fantasy books] gets a little weird. There are some words, for example, like 'elf.' I knew that word but for example...I know the word, there are some other words like half man and half horse. I think it's Centaurs. I am not sure. Ok...those kinds of words kind of get me confusing [confused]."

Marco was technologically savvy and he used technology for a variety of entertainment and social networking purposes. He liked to play all kinds of games, such as "GunBound," which he had played in Chile. Besides e-mail, he also used Internet social tools, such as MySpace, Instant Messaging, blogging, and Facebook, to network with his friends. His amount of his computer usage was, however, not fixed. Sometimes he was online "almost all

day" and sometimes he only did it "once a week." When he received a bad grade, his parents would restrict him from using the computer.

Marco was outgoing and social. He had frequent interactions with other students, both male and female, most of the time. When the class was doing the sustained silent reading activity or when he worked on the Skill section, he changed seats very often. Sometimes he sat at his and other students' desks and even at the teacher's desk to connect to others. In the beginning of my visits, he approached me and asked me if I would interview him.

Marco was an active student and involved in school projects. During the school's multicultural week, the school invited some of Ms. Anderson's ESOL students to present their cultures to the mainstream students. Marco was one of the six students who volunteered to participate in the project. His role was to describe his immigrant experience when he first came to the U.S. He explained how he was disturbed by seeing the phrase "Welcome to America" because, being from Chile in South America, he already considered himself an American.

Xiao Nan

Xiao Nan was the most recent arrival in the U.S among the group of participants; having come in March 2008. He came with his mother, a visiting scholar at a nearby university. They planned to stay in the U.S. for one year and then to move back to China in March 2009. Xiao Nan came from a single-parent family whose mother was a professor at a university in Shen-Dung.

Xiao Nan used technology at home almost every day for academic and non-academic purposes. He did research for his school homework on English language web pages. For example, he did research for a paper on the Revolutionary War in his social studies class. He also studied for his Spanish class using the Internet. He used to play computer games, such as "strategic video games" related to fighting while he was in China. He also liked to read

fiction online, including "Kung-Fu" fiction. Since he has been living in the U.S., he has enjoyed reading news in Chinese. Once in a while, he will do online chatting with his friends in China.

Xiao Nan was very quiet in and out of the classroom. In class, I seldom saw him interact with other students. He talked to Marco, who sat next to him, more than other students. Most of the time, he sat at his desk quietly and did not talk to other students. During the lunch break, he had lunch with three or four boys, some of whom I recognized, as other ESOL students from Ms. Anderson's class. Once while I was having lunch with him outside of the school cafeteria, one of his friends from the U.S. came to him and said he would like to learn Chinese. Xiao Nan seemed to be very surprised as he said "Really? You want to learn Chinese?"

In an open-ended interview, Xiao Nan told me that some school students talked about him behind his back because they thought he did not understand English. Although he cannot speak and write very well, he said he was able to listen and understand.

READ 180

READ 180 is an intervention program, designed specifically for K-12 English-speaking struggling readers and English language learners (Scholastic, 2006). The program is divided into three stages: Stage A is for elementary level students, Stage B is for middle school level students, and Stage C is for high school level students. While READ 180 provides three stages, the current study focuses on Stage B, the middle school aspect. The program is specifically targeted to two student populations: struggling readers and English Language Learners.

Table 4-2. Demographics of the four participants

Participants	Gender	Grade	Age	Country/ Region	U.S. citizen	Time in the U.S. (year)(until December, 08)	Technological uses at home	Books of interest
Eva	Female	8	13	Puerto Rico	Yes	5 years	Research Photos Playing video games	Love, Mystery
Isabel	Female	8	13	Puerto Rico	Yes	4 years	Research Social networking (e.g. MSN)	Love, Mystery, Fiction
Marco	Male	8	13	Chile	No	14 months	Facebook Instant Messaging Games	Graphic novels
Xiao Nan	Male	8	13	China	No	8 months	Playing games Reading Kung-fu Fiction Research	Ethics, Mystery, Adventure

The READ 180 software program includes four major zones, sequenced by (1) Reading Zone, (2) Word Zone, (3) Spelling Zone, and (4) Success Zone. Students are expected to interact with these zones, from which they resume the task for 20 minutes when they are in the Computer group during what is called the three-phase rotation. The program keeps a complete record the Zone they have not completed and request them to continue it. In the following section, I will describe each zone based on the student tasks and my interpretation about how it helps students to read.

Reading Zone

The Reading Zone involves three subsections: (1) Video, (2) Passage, and (3) Self-check. First, students watch a realistic video clip that is related to a passage that they will read following the video. The video is one minute long. After watching the video, students listen to one of four-level passages. Sentences in the passages are highlighted in violet while the narration takes place. In addition, some important phrases are colored in pink for extra attention. Students can also choose to listen to a word or a phrase by moving the cursor over it. After students have watched the video and listened to the passage, they are expected to record themselves reading the passage. During the Self-check section, students answer ten multiple-choice questions intended to test comprehension and vocabulary. In the Self-check section, they receive immediate feedback confirming or disconfirming their answers. If students answer the questions correctly, they move to the next item. If they answer incorrectly, they click on another answer until they find the correct answer. Students are allowed to return to the passage at any time during the exercise.

Word Zone

The Word Zone includes (1) Word Assessment, (2) Word Clinic, (3) Word Match, (4) Word Review, (5) Self Check, and (6) Speed Challenge. In the Word Assessment section,

students make initial contact with the words that relate to the passage they had previously read in the Reading Zone. "Word," "Sentence," and "Pause" buttons are available for students who need additional assistance or a break. Students click on a word from a list to identify what they have heard. In the Word Click section, students record the words shown on the screen. "Tip," "Record," and "Pause" buttons are also available. They can listen to tips on how to sound out words before recording their answers. There are five words on the screen at a time. In the Word Match section, students match a word from a list to what they have heard, based on what they have heard. Once again, there are five words on the screen at a time. A "Mix-up" button is available for students to redo the task. In the Word Review section, students practice words that the program has identified as words with which students need more practice, usually commonly misspelled and missed words. "Word," "Sentence," and "Pause" buttons are also available here. In the Self Check section, students self-assess their own accuracy by recording each word themselves without hearing the narrator. The "Record" button is made available, and one word appears on screen at a time.

Finally, in the Speed Challenge section, students click on the words that they hear as quickly as they can and are shown immediately whether their answers are correct. Once they complete the whole section, the READ 180 program will present a report indicating words in groups that are "incorrect" "slow" and "missed."

Spelling Zone

The Spelling Zone section is comprised of (1) Spelling Assessment, (2) Spelling Clinic, (3) Spelling Challenge, and (4) Proofreading. In the Spelling Assessment section, students listen and spell out the words that they hear with their headsets with ten words listed on the screen. Then they receive immediate feedback by being told which items are correct and which are not. The incorrect words are retained for students to practice in the spelling clinic. In the Spelling

Clinic section, students practice words that they typed incorrectly in the Spelling Assessment. In the Spelling Challenge section, students hear a word and type it in as quickly as they can. There are three buttons included: "Word" (for word meaning), "Sentence" (for contextual meaning), and "Pause" to give a break for students who need extra support. Once students enter a word, they receive immediate feedback on the accuracy of their answers. If they receive a "Yes," they then move to the next item. If they receive a "No", the correct word spelling appears on the screen with a small box in which students can practice by typing it. Finally, in the Proofreading section, students identify the misspelled words within a sentence by choosing the correct one from a list of five words. The questions are based on the words students have misspelled. Again, they receive immediate feedback to indicate whether their answers are correct.

Success Zone

The Success Zone section includes (1) Discrepancy Passages, (2) Context Passages, (3) Final recording, and (4) Fluency self-check. In the Discrepancy Passages section, students identify the passage that correctly reflects the meaning of the original passage from three passages. In Context Passages, students do a cloze, or fill-in practice exercise, in which they read the same passage in which some vocabulary words are missing. Students click on the blanks and choose the correct answer from a list of six words to fill in the blank. If their answers are all correct, students move onto the next page to continue the rest of the passage. If their answers are incorrect, the sections become blank and students are expected to reselect an answer from the same list for further practice. In the Final Recording section, students record the whole passage again. This is aimed at providing students with an opportunity to practice fluency. Finally, in the Fluency Self-Check section, students listen to their own recording. After the Fluency Self-Check, the screen shows a word count that students have read per minute (WCPM).

The content of the READ 180 software program for middle school students (Stage B) provides three content areas with nine topics (see Appendix L). In each topic, students are expected to finish each unit before they go to the next topic.

READ 180 Paperback Books, Audio Books, and rBook

In addition to its software, READ 180 includes a collection of paperback books as well as audio books and an rBook (Scholastic, 2005). These materials are designed for teachers and students to use in a 90-minute instructional model when students are not using the computer. This model suggests beginning with a 20-minute whole group instruction, followed by a 60-minute rotation, and ending with a 10-minute whole group discussion. According to the READ 180 program manual, students choose to read paperback books or audio books when they rotate in the independent group (also called the Skill Section). The READ 180 website also indicates other student materials related to READ 180, such as Fact & Fiction and Ultra-X paperback books, but, I did not see these materials being used by my participants. Consequently, this study could only focus on the materials that were currently being used by the participants in Ms. Anderson's classroom.

The READ 180 rBook is designed specifically for teachers who work with English language learners (ELLs) in the whole group and small group discussion format. The book is arranged by themes that the publisher asserts are related to the experience of ELLs. The first unit, The New Americans, describes immigrant experiences in the United States. This rBook also provides opportunities for students to practice different genres of writing. To accompany the rBook, Scholastic Inc. also provides videos as additional resources for teachers to show in class.

The ESOL Class Routine of Using READ 180

Ms. Anderson's intermediate-advanced ESOL class began during the fifth and the sixth class periods at Sunshine Middle School, which took place from 1:40 p.m. to 3: 30 p.m. She

always had her class spend 20 minutes on sustained silent reading (SSR). Students chose the books they wanted to read in either paperback or audio book form. Then students wrote in their reading logs about what they read before they started the READ 180 rotation.

The READ 180 materials in Ms. Anderson's ESOL class included a classroom storage unit with paperback books and audio books. The audio books provide CDs that narrate the book to students while they read along with the book on screen.

Ms. Anderson only adopted the rotation aspect of READ 180 (see Table 4-3) into her ESOL curriculum. After the class filled in student reading logs, she announced what Skill section they would do for the day before the READ 180 rotation started. Then one-third of the students went to the computers, one-third of the students worked in a small group with the teacher, and one-third of the students worked on previously assigned tasks or independent reading.

In small group work, Ms. Anderson provided READ 180 instructions for using rBooks. During my data collection period, she went through the first two chapters of the rBook for middle school students: *The New Americans* and *The Disaster Lesson*. Also, during Small Group work she provided feedback to students on their reading logs.

In the Skill section, Ms. Anderson asked her students to work on both READ 180 and non-READ 180-related tasks. The non-READ 180 tasks can be anything from spelling tests to non-READ 180 writing.

With the exception of the use of READ 180 software program, Ms. Anderson's class did not use technology very often. During my visits, she displayed some photos to the class and the video clip that students made for the multicultural week through the TV. However, the class did

not have to learn to videotape because the staff at the media center at the Sunshine Middle School made it for them.

Table 4-3. A typical routine of Ms. Anderson's ESOL class

1:40 p.m.	Class begins	Student Task
1:45 p.m.	Sustained Silent Reading (SSR)	Students chose to read books, either READ 180 or non-READ 180 related.
2:05 p.m.	Reading logs	Students filled out their own reading logs.
2: 10 p.m.	READ 180 Rotation (1)	Students began with the three-stage rotation—Computer, Small Group, and Skill.
2: 30 p.m.	READ 180 Rotation (2)	
2: 50 p.m.	READ 180 Rotation (3)	
3: 10~3:20 p.m.	Class announcements	
3: 30 p.m.	Class dismissed	

The following table (Table 4-4) indicates the four participants' reading activity, including READ 180 and non-READ 180 books based on students' reading logs from November 2008 to January 2009. All of the participants had read both READ 180 books and non-READ 180 books. For example, Eva, had read READ 180 paperback books and non-READ 180 books, such as *Inkspell* (Funke, 2007) and the popular teen fiction, *Twilight* (Meyer, 2008). Isabel had read only two READ 180 books, *Love Letters* and *The Good Fight*, but she had read six non-READ 180 books, such as *Dacey's Song* (Voigt, 2003) and *Homecoming* (Voigt, 2003). Marco, had read five READ 180 books and one non-READ 180 book, entitled *From Amigos to Friends* (Garcia, 1997). Xiao Nan had mostly read READ 180 books with the exception of *Rave Master* (Mashima, 2003).

Both Eva and Isabel read more non-READ 180 books than READ 180 books, preferring popular fiction, whereas Marco and Xiao Nan read more READ 180 books. What is interesting to note is that the non-READ 180 book that Marco read was culturally relevant in that it portrayed immigrant experiences in the United States. Pelayo Pete Garcia's (1997) *From Amigos to Friends* describes a Cuban child's exile experience to the U.S.

Table 4-4. An overview of participants' reading (Based on students' reading logs)

Participants	READ 180 Books (Paperbacks & Audio books)	Non-READ 180 Books
Eva	• Money Hungry • Love Letters and Other Stories • Wait until Dark: Tales of Suspense • Classic Tales of Terror • The Mighty	• Inkspell • New Moon • Eclipse
Isabel	• Love Letters and Other Stories • The Good Fight: Stories about Real Heroes	• Twilight Sisterhood of the Traveling Pants • Dicey's Song • Homecoming • Ruby Holler • Princess Academy
Marco	• Daniel's Story • Odd Job • Frankenstein (Graphic novels) • Jane Eyre (Graphic novels) • The Star Fisher	• From Amigos to Friends
Xiao Nan	• Classic Tales of Terror • Creatures Infest Local School! • Daniel's Story	• Rave Master

Conclusions

Based on the interview, observational and archival data collected in this investigation, this chapter provides a detailed description about the context of this study, including the school context, the daily practice of ESOL class, the students' literacy practices with and without technology and the descriptions of the components of the READ 180 reading program. The context showed that the participants selected to read numerous books as part of their everyday literacy practices. The next chapter will delineate the study's most significant findings.

CHAPTER 5
FINDINGS

Introduction

The purpose of this study was to show an understanding of the ways in which adolescent English Language Learners (ELLs) perceived the use of the READ 180 software program. This understanding was made through my exploration of the READ 180 software program and the books being used by adolescent ELLs in their ESOL classrooms. The data that I collected from each student, including student interviews, were analyzed using grounded theory methods. It should be noted that the findings may be influenced by the imbalance of power dynamic between adults and teenagers (Eder & Fingerson, 2003). While there may be multiple data interpretations, the interpretations are subjective to the researcher, who co-constructed the knowledge of the data emerging from the study with her participants. To eliminate my subjective bias, I provide an alternative interpretation to some elements of my findings. In this chapter, I provide a theory diagram in order to present how adolescent ELLs interviewed in this study perceived the use of READ 180.

Theory of the Ways in Which Adolescent ELLs Perceive the Use of READ 180

The theory diagram (Figure 5.1) below illustrates the context of the ways in which adolescent ELLs described their learning experiences while using the READ 180 reading intervention. The theory is based on the 14 selective codes developed during the data analysis process as described in Chapter 3. The diagram shows the core category as Differentiated Learning. I described Differentiated Learning with respect to the degree in which the READ 180 program differentiated instruction for ELLs' needs, abilities, and interests. The cultural and linguistic backgrounds of ELLs shaped their perceptions and experiences while using READ 180.

In addition to their cultural and linguistic experiences, students reported that the use of technology in READ 180, including software and audio books, also provided an individualized learning environment that met ELLs' needs and interest to keep them engaged. I categorized the 14 selective codes that reflected students' needs into three overarching groups: culture, language and technology.

The ways in which the adolescent ELLs perceived READ 180 and the degree to which it differentiated their learning were multi-faceted and multi-dimensional. I made an attempt to use the two aspects (responsive and non-responsive) to present the theory of how READ 180 responded to the needs of ELLs. The responsive aspect of READ 180 illustrates how the program responded to the needs and interest of ELLs. Students' cultural needs included the ways in which READ 180 responded to some students' cultural backgrounds and their immigrant experiences. READ 180 responded to their linguistic needs by providing repeated reading practice and scaffolds students learning on both decoding and comprehension. The integration of technology in READ 180 provided an incentive to motivate ELLs and synchronized their learning paces with choices and feedback.

The non-responsive aspect, of READ 180 illustrates how the program failed to respond to the unique cultural and linguistic needs of ELLs. ELLs were disengaged due to the cultural conflict created by their interaction with the program's materials, the lack of culturally relevant materials, and the lack of connection to their prior knowledge. The reading comprehension difficulties encountered by the participants suggested that they needed more support for comprehension. Lower-level ELLs desired more opportunities for conversational learning. Technology did not sufficiently synchronize their learning pace because of limited choice, inaccurate feedback, and redundant auditory supports.

In this chapter, I argue that READ 180 responded to the general needs of ELLs, yet the program failed to respond to their unique cultural and linguistic needs and interests. Additionally, ELLs identified the technological aspect of READ 180 (software and audio books) as an incentive to motivate them with learning. However, the findings from this study showed that the students were already intrinsically motivated to learn English and engaged in reading activities in their everyday practices.

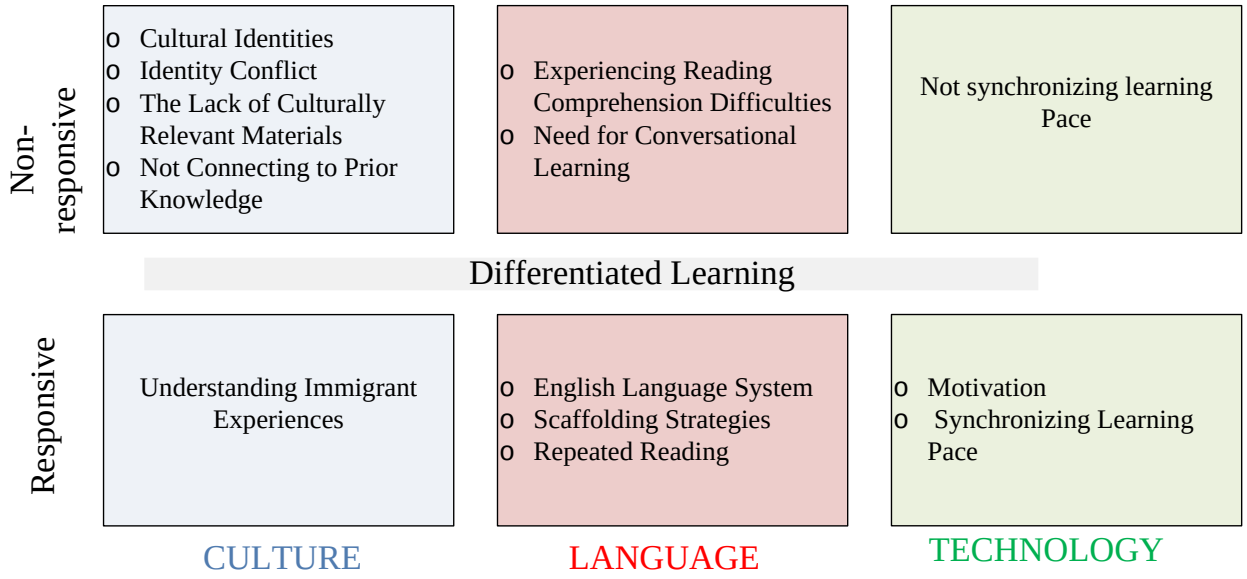


Figure 5-1. Theory of the ways in which adolescent English Language Learners perceive the use of the READ 180 reading program

The following section begins with a description of the responsive aspect with respect to differentiated learning and culture, language, and technology, for ELLs using READ 180. Then I move on to discuss the non-responsive aspect with the equal three dimensions. The heading indicates selective codes and the words in bold within the text indicate the focused codes (see Chapter 3).

Responsive: Culture-Understanding Immigrant Experiences

Culture shapes the ways in which one thinks and acts. In the learning context, what one brings from his or her culture influences his or her knowledge construction process. As a

demonstration of distinguishing ELLs from mainstream English native speakers, READ 180 met ELLs' cultural needs by echoing immigrants' experiences in the United States in the *New Americans* lesson. The portrayal of difficult life experiences was familiar to these ELLs and they were intrinsically interested in learning about it.

Difficult lives: The *New Americans* lesson of READ 180 (see Chapter 4) contributed to responding to ELLs' culture by providing an opportunity for the ELLs to reflect on their immigrant experiences in the United States. Indeed, ELLs appeared to be interested in learning about similar, difficult life experiences that other immigrants had encountered. Participants described how some of the challenges they encountered were similar to those portrayed in the lesson, and they were interested in learning about other immigrants.

Participants described the difficult lives that immigrants face in the *New Americans* lesson of READ 180, such as speaking limited English and experiencing an isolated social life. Isabel described the life of a teenage girl featured in READ 180 materials, who came to the United States as an immigrant:

> It [READ 180] said that everything she is going through, like, she doesn't know about English and she wants to go back. Because she is an immigrant and all that, and starting all over is like hard for other people and I think that's the one. (Isabel, 12/19/08)

Eva agreed with the way in which READ 180 portrayed the arduous lives of an immigrant, "Yeah. When you are new to a country, it's hard and tough," echoing her life experiences when she first came to the United States (Eva, 12/15/08). Xiao Nan also agreed: "Their [immigrants'] life is tough." (他們生活挺辛苦的。) (Xiao Nan, 12/15/08). Isabel agreed with him, stating that, "the first year it was hard" and "I didn't know much English." (Isabel, 12/04/08). Marco added: "Like you don't have friends. [There is] Nobody to help [you]." Eva added that, "Making friends is hard too" (Eva, 12/15/08). Addressing newcomers who try to keep up with

their peers, Eva expressed: "You wanna do good but you just don't know what they [her peers] are doing." The four ELLs all argued that the challenges they faced when they arrived in the United States were similar to the experiences featured in the *New Americans* lesson.

Interest in learning about other immigrants: As immigrants in the United States, these adolescent ELLs described their interest in learning about other immigrants who came from other countries and understanding how they acclimated to life in the United States. For example, feeling that he was not alone, Marco described his fondness for learning about immigrants: "[It's] good 'cause I learn more [from] immigrants [who] are coming here" (Marco, 11/25/08). Marco continued: "They [READ 180] talk about how it's like to be an immigrant here; [it] was really hard. The [airplane] flight was really long and everything [they said was] right. It was long. [Making friends is hard, too.] Really hard to fit in" (Marco, 12/11/08). At the same time, learning about the experiences of other immigrants seemed to reassure the ELLS about their own immigrant identities. Isabel said that it was "really cool to learn about other immigrants" and know "how [what] they go through" (Isabel, 12/04/08). She learned that people from different countries have different experiences as they immigrate to the U.S. For Eva and Isabel, both native Puerto Ricans, this was particularly interesting because, Puerto Ricans are "automatically citizens of the United States," (Isabel, 12/04/08) and they sensed their "privilege" (Eva, 12/15/08) over the other immigrants described in the READ 180 unit on immigrants. Eva also mentioned that she learned about immigrants in a class discussion with the teacher: "I... like being with the teacher 'cause we get to read from books and know about immigrants and stuff like that" (Eva, 11/25/08). Thus the materials in READ 180, especially the *New Americans* lesson, encouraged the ELLs to learn English by connecting the content to their cultural experiences.

Responsive: Language

READ 180 responded to participants' linguistic needs in three ways: first, it helped ELLs build on their knowledge of English language system, including decoding, spelling, word pattern identification, and word meaning. Next, it provided a variety of scaffolding strategies, including visual, auditory, identifying the main ideas, and questioning. Finally, it promoted ELLs' reading proficiency through repeated reading practices to promote both fluency and understanding. In this way, the phonological processing language skills were emphasized to promote reading with drill and practices.

English Language System

READ 180 responded to ELLs' learning needs by helping ELLs to learn about the English language system. Participants identified the ways in which READ 180 responded to their linguistic needs by helping them understanding the letter-sound connection and the structure of English words through practice. It also assisted them in approaching the meanings of words. Participants also focused on exploring the meanings and patterns of English words with READ 180. The findings of this study indicated that READ 180 provided strategies for understanding English language usage, including the following areas: (1) decoding, (2) spelling, (3) word pattern identification, and (4) word meaning.

Decoding: Decoding is a process in which students convert written symbols into sounds and subsequent meanings. All four participants said that READ 180 helped them to explore the sound system of the English language so that they knew "how to say the word" (Isabel, 12/01/08). Xiao Nan specifically pointed out that the Word Zone section (see Chapter 4) helped him with words by offering him the opportunity for repetition (Xiao Nan, 12/01/08). Marco believed that if he knew how to say a word he could "read faster than before" (Marco, 12/19/08). Isabel commented that working with the READ 180 computer software allowed her to improve

her decoding skills: “If you don’t understand the word, it’s like you can have a person read with you, so you can see how it is pronounced” (Isabel, 01/21/09). For example, some of the participants described how this function helped them to identify word segments by deconstructing a word into syllables. Isabel used her name as an example, stating that, “my name is like I-SA-BEL, like three parts” (Isabel, 01/21/09). “Sometimes in the Word Zone, they separate words like...you know when you have to put two words together [a compound word]” (Eva, 01/21/09).

Referring to another decoding strategy, Isabel described how word recognition practice provided by READ 180 “helped” her, “Because in Word Zone, they [READ 180] give you a list, they tell you the word but you have to look for it in a list, it’s like a lot of words looked alike. So you have to find the right one that is spelled.” This process specifically targeted word sounds rather than meanings.

Spelling: READ 180 responded to ELLs’ linguistic needs by providing opportunities for students to practice spelling. All of the participants described how READ 180 helped them learn “how to spell” words (Eva, 11/25/08; Isabel, 12/01/08; Xiao Nan, 11/25/08), particularly words that are “long” (Isabel, 01/21/09) or “difficult to spell” (Eva, 12/19/08). For example, instant computer feedback that informed them if they had misspelled a word was seen by the study participants as helping them the most. Isabel commented that, “In Spelling Zone, they tell you the word, and you have to spell it. And if you don’t spell it right, they will give you other chances” (Isabel, 01/21/09). The READ 180 program also offered the students “tips” on how to spell words correctly by opening up a small window and telling users the right way to spell them (Marco, 12/19/08). Their fondness for spelling aids will be further explored later.

Identifying the word patterns: Participants reported that they learned word meanings by identifying the word patterns of English. This practice helped them to "organize the words" that already existed in their individual knowledge bases (Isabel, 12/04/08). "I have a way to see it [a word] when I finish" (Isabel, 12/04/08). They specified the ways in which words can be organized through the use of rBook, such as "antonyms and synonyms" (Xiao Nan, 12/01/08), "prefix and suffix" (Eva, 01/27/09), "the future tense and the present tense" of a word (Isabel, 12/04/08). This opportunity for practice greatly enhanced students' learning as they explained that they "always got future and past tense mix up" (Isabel, 12/19/08) or "got [it] wrong" (Marco, 12/19/08).

Word meanings: Participants also focused on word meanings with READ 180. As Eva reported, "they give you a good definition" (Eva, 01/21/09). Marco was also pleased that READ 180 provided effective explanations of words:

> They [READ 180] explain really good, like, say for example, I press the word, I accidentally press the word "very" they say "very." "Very" means much, not....they explain so good that I understand better than I did last time...than my dad told me (laugh). (Marco, 01/21/09)

However, perhaps because of their more advanced language proficiency in English, Eva and Isabel said that they did not often use that part of READ 180. Instead, they clicked on words in order to understand their meanings, "I use it [clicking on words] once in a while 'cause sometimes it [a reading passage] has words I've not heard before so I just click for what it means and it really helps" (Eva, 01/21/09). "I only do it [click on the Word Definition button] for really long words" (Isabel, 01/21/09).

Some participants stated that they learned to predict meanings of words within a sentence by using contextual cues. This strategy demonstrated cognitive thinking with inductive reasoning. For example, Eva said that, "if you don't know what it means, you can find out what

it means by how it is made [placed] in a sentence" (Eva, 11/25/08). Xiao Nan perceived contextual meaning in READ 180 helpful as a way to understand word meanings in a sentence, "there are words I've seen before and I just forget, [but if I see it in the context of a sentence] I'll know their meaning in that sentence." (有些詞以前看過，然後後來忘了。然後從那句子當中就可以看出來。) (Xiao, 12/03/08). Marco jokingly said that he learned to understand a word contextually, but "if that's the only word I get, I would get it zero" (Marco, 12/19/08).

Scaffolding Strategies

The way in which READ 180 responded most effectively to ELLs' linguistic needs was with scaffolding strategies that deepened their levels of comprehension. In this section, the four adolescent ELLs perceived that the READ 180 materials met their linguistic needs by providing various strategies as scaffolds to help them comprehend/understand a text. These strategies provided additional support to engage them in language learning. The findings that illustrated how READ 180 provides scaffolding strategies for understanding were comprised of the following areas: (1) visual aids; (2) auditory aids; (3) identifying the main idea; and (4) questioning.

Visual aids: Providing visual aids was a way that READ 180 offered scaffolding for ELLs by promoting their understanding of a text. Marco and Xiao Nan acknowledged that READ 180 provided visual aids, including videos and pictures, for increased understanding. Marco described how he made connections between the video and the text, "cause in Snowboarding [a session of CD topic of READ 180], it shows me that snowboarding is a sport that is really an extreme sport so I start thinking about sports. It's really cool." (Marco, 01/21/09) With his limited English, Marco explicitly described how the video provided in READ 180 supported his understanding of the text:

> The video makes the topic and me [connects me to the topic] without reading. And then when I read it, I make my own topic [I connect to the topic] but it's based on the video and what I read. And then I answer the questions so they are [become] really easy." (Marco, 01/21/09)

The use of graphic novels (illustrated books) was another "awesome" form of visual aid that READ 180 provided (Marco, 11/25/08). Xiao Nan also indicated that he enjoyed reading the graphic novel *Moby Dick* "because it is graphic." (因爲它是圖畫的嘛) (Xiao Nan, 12/03/08) Indeed, both of them perceived that visual aids were "an advantage" with READ 180 (Marco, 01/27/09). Furthermore, Eva described the ways in which videos engaged her in reading: "It does make the story of the book interesting...the way they say it makes you wanna read it" (Eva, 12/19/08).

Auditory aids: The use of auditory aids was a strategy that READ 180 used as scaffolding for ELLs by promoting their understanding of a text. These auditory aids were perceived as more valuable for beginning- or intermediate- level ELLs, Xiao Nan and Marco, than for advanced ones. Both Xiao Nan and Marco expressed that the narration of an audio CD helped the ELLs to comprehend better the text. The advanced-level ELLs, Eva and Isabel, were not interested in using audio CDs at all, an issue that I will discuss later in the technology section. Xiao Nan reported that, "the audio CD has another voice that tells you how s/he thinks of this reading and it helps me understand." (那個 [audio CD]在讀的時候，它會出現另一個聲音，然後說這個聲音把這個人自己的想法說了出來，有助於理解這篇文章。) (Xiao Nan, 01/15/09). Marco also agreed with Xiao Nan because the narrators "explain things I don't know" (Marco, 12/11/08). He gave an example of how he inferred a word meaning with the

auditory support: "I've been thinking about the word 'amune[1]' [immune] with some fish; something and then they told me...since they say this and that, I think 'amune' [immune] means 'it does not affect to something.' That's what I was taught" (Marco, 12/11/08). His use of the word "taught" illustrated how the narrator can function as a teacher for some of the processes in READ 180.

Identifying the main idea: Identifying the main idea of a passage was another scaffolding strategy that illustrated the ways in which READ 180 responded to ELLs' linguistic needs. The participants described the ways in which READ 180 worksheet helped them find main ideas and details in the *New Americans* lesson of the rBook (see Chapter 4) (Eva, 12/02/08; Isabel, 12/04/08; Xiao Nan, 12/03/08). For example, Isabel described how identifying the main idea helped her because "sometimes there's always the first sentence or the second sentence but today we were talking about that it's [the main idea] not always in the first sentence" (Isabel, 12/04/08). She continued to relate: "We read a story together and after that we made a web and in the middle, it's about the main idea and on the web you have to support the main idea, like evidence from the story. That helps me find what the story is mainly about." (Isabel, 12/04/08). In other words, such exercises helped ELLs understand the structure of a passage better and thus improved their reading comprehension. Xiao Nan also reported that identifying main ideas was an aid to his reading comprehension: "we practiced by writing down the main idea and the details of a passage...how it began and developed...that really improved reading comprehension (這篇的主要內容，detail 這些，這篇文章先寫什麼再寫什麼，最後再寫什麼，就是增加閱讀理解能力。) (Xiao Nan, 01/15/09). Eva also found it helpful as she noted:

[1] The word "amune" was the actual sound pronounced by Marco although he was trying to say "immune." This is typical for Spanish speakers whose English is in early developmental stage.

> That [Finding the main idea] helps me find what the story is mainly about. If someone asks you what the story is about, you can tell them what's in the reading. You can tell the person quickly what the story is about without having to read the whole story." (Eva, 12/03/08)

Thus, the four ELLs all agreed that identifying main ideas deepened their understanding of texts.

Questioning: Questioning was another scaffolding strategy used by READ 180 to meet ELLs' linguistic needs. This strategy responded to ELLs' needs because it promoted their reading comprehension skills. Although questions were used as a way to assess their reading, this type of assessment helped ELLs reflect on what they had read (see Chapter 4 for the software description). Xiao Nan noted that these kinds of assessments functioned as a learning aid to help his reading comprehension: "these exercises you do help you understand the passage better." (做這些題間接的讓你對這篇文章理解更深。) (Xiao Nan, 01/21/09). He further said that, "You have to think very hard on some exercises to get it right." (有些題你得深入思想，你才做的出來。) (Xiao Nan, 01/21/09). Isabel also agreed that she thought that, "questions are really good" to help her "pay attention to what's happening in the story" (Isabel, 01/21/09). Eva felt questioning was a way to "prepare" her for transitioning from the ESOL program into "a regular English class" (Eva, 12/19/08). In sum, READ 180 provided the ELLs studied with effective scaffolding through questioning.

Repeated Reading

The findings of this showed that READ 180 provided repeated opportunities for reading practice in order to meet ELLs' linguistic needs so that they could read more quickly and effectively. The four participants described the ways in which READ 180 integrated repeated reading activities into the design of the program for them to improve both their reading fluency and their reading comprehension. For example, the recording of READ 180 allowed students to practice their oral reading fluency; the Word Zone and Spelling Zone helped students review

words; and in the Success Zone, students reviewed and were tested on what they had learned (see Chapter 4). It was also through repeated practice that they learned to comprehend a text. The findings of this study indicated that these repeated reading activities included repetition for fluency and repetition for understanding.

Repetition for fluency: On the one hand, participants in this study indicated that repeated practice helped develop their oral reading fluency skills. Isabel indicated that repetition helped her with pronunciation accuracy: "You can hear yourself and if you don't say it right, you can record it again" (Isabel, 01/29/09). Marco described the same experience with repetition and the way that it helped him learn to pronounce words more accurately: "They [the READ 180 program] say once, and I say twice. They say it and then I say it back" (Marco, 12/19/08). Xiao Nan also described the way that he learned a word if he saw it by "practicing a couple times in Word Zone" (Word Zone 多練幾遍就記住了。) (Xiao Nan, 12/01/08).

Repetition for understanding: On the other hand, the ELLs interviewed in this study noted that repetition built upon their text and word familiarity so that they increased their understanding. Isabel explained that, "Once you read it [the passage] again, it helps you to get the basics. I think that they [READ 180] do that, so you can understand it" (Isabel, 11/25/08). Eva agreed with Isabel that practice made learning occur: "If you practice on them [words], you do good on them" (Eva, 01/21/09). Isabel described her experience:

> There is one time that I was in Reading Zone, I didn't really get the question, so if you don't get that, you have to go back to the passage, and read it again, so it can help you answer the question. (Isabel, 11/25/08)

Isabel explained that she understood the text better when she was able to revisit the text with the questions in her mind. Xiao Nan also commented that his understanding was influenced by the repetition of a text, and he re-read a passage in order to do the exercises: "I only read that

passage once; I was not [very] familiar with it. I had to read it [the passage] again..." (那篇文章我才讀過一遍，所以我沒多大熟悉，我要再看一遍有印象...) (Xiao, 12/03/08). Altogether, the READ 180 software package was successful in providing scaffolding for ELLs' learning needs.

Responsive: Technology

The use of technological components (software and audio CDs) provided an incentive to engage ELLs to learn and for individualized learning. The findings from the study indicated that participants were motivated when the READ 180 software offered access to a variety of topics that met their individual interests and expanded their knowledge bases. Additionally, READ 180 responded to the needs of ELLs when the pace between READ 180 and ELLs paralleled, where ELLs made choices and received prompt feedback. With the use of technology that responded to their needs, each ELL was able to adjust his or her learning in terms of what and how he or she learned.

Motivation

The findings from the study showed that the use of technology provided an incentive to motivate ELLs to engage in reading. The four participants perceived that the use of computer within READ 180 served as an extrinsic point of motivation. The specific technological components in READ 180 that provided extrinsic motivation for ELLs were opportunities for spelling practice, a variety of topics, and test scores. Two of the participants, Marco and Isabel, stated that the grades that they received motivated them to work. However, Xiao Nan and Eva did not believe that READ 180 gave them a sense of accomplishment. While READ 180 provided extrinsic motivation for ELLs to read, such motivation was not necessary, as the four

participants showed intrinsic motivation and actively engaged in reading activities outside of the READ 180, which I will describe later.

Spelling: The students interviewed for this project specifically pointed out that "the computer" kept them engaged (Eva, 11/25/08; Marco, 01/21/09; Xiao Nan, 11/25/08). The phrase "the computer" refers to the computer-based learning component of READ 180. Both boys, Xiao Nan and Marco, used the word "because" to indicate that the computer was an incentive for them to learn, "'cause it's the computer. I like the computer" (Xiao Nan, 01/27/09). "The computer part is what I like the most 'cause with the computer you hang out and it's so cool" (Marco, 01/21/09). Marco also pointed out that the spelling activities of READ 180 engaged him more than did other parts, "'cause with the computer you hang out and it's so cool, especially when you go to the Spelling Zone. I like it!" (Marco, 01/21/09) Among all of the rotations of READ 180, Eva and Isabel expressed that the spelling practice included in READ 180 engaged them the most. Eva said that, "I like the spelling the most" (Eva, 11/25/08). Similarly, Isabel said that spelling was her favorite part: "I like it when we do the spelling. I like doing spelling." (Isabel, 01/29/09). She found that the spelling practice prepared her for the FCAT, as "it helps you spell the word better so in case you have the FCAT, you did get the spelling mistakes" (Isabel, 11/25/08). Xiao Nan also indicated that working with the computer was his favorite part of doing the READ 180 rotations: "I like the computer the most!" (最喜歡的就是跟 computer 啦!) (Xiao Nan, 12/01/08). Xiao Nan did not express any pleasure with the spelling activities. Instead, he was concerned with learning the strategies of "how to spell words" (記詞的拼寫) (Xiao Nan, 12/01/08).

A variety of topics: The READ 180 publisher provided the adolescent ELLs interviewed for this study with a variety of topics in both the software program and the print materials for the

sake of breadth and depth of knowledge. The participants indicated that they were specifically attracted to the software because of the availability of diverse topics. As a demonstration of differentiated learning offered by the program, the variety of topics served to respond to the needs and/or interests of each ELL. Participants identified the topics offered in the READ 180 program as diverse in terms of the quantity and quality of topics. Given a list of the titles of all topic CDs available, Xiao Nan exclaimed, after learning about the total number: "Wow, there are so many!" (這麼多啊！) (Xiao Nan, 12/15/08) "Oh my God! There are so many....it's 144 [sessions]." (Oh my God! 怎麼這麼多....144 個。) (Xiao Nan, 12/15/08). While Xiao Nan was impressed by the sheer volume of topics, Isabel described the variation of topics: "the rBook has like a lot of topics. They can go like from somebody got shot [hit] by the lightening, to like animals.... It gives a variety of topics" (Isabel, 11/25/08). Xiao Nan commented that the topics of the CDs on the computer which kept him more engaged than during other rotation. He stated that, "the topics are interesting and novel so I like to work with the computer better." (裡面的東西比較吸引，感覺比較舒服，比較新奇，所以我比較喜歡用電腦。) (Xiao Nan, 12/03/08). Eva reported that the variety of topics met her interest: "There is a lot of different topic, like, more than one session. I really like the topics. They are interesting" (Eva, 11/25/08).

Multiple topics allowed ELLs to choose the subjects that interested them most. For example, Isabel chose to work on the topic "The Extreme Sports" as she enjoyed outdoor sports, "cause the topics in READ 180 are interesting like sports are dangerous but it makes it more fun to see" (Isabel, 01/29/09). In addition, Eva enjoyed learning from a READ 180 section about teenagers and the legal system. She enjoyed reading a story about a mother who inadvertently violated the law because she did not know that there was a curfew for her teenage son. She stated that, "I really like the topics… like, curfew…he was arrested because there was a curfew"

(Eva, 11/25/08). Eva explained that both the mother and the son were punished for violating the law even though they did not understand it. As such, these interesting topics seemed to fulfill the participants' individual interests.

The variety of topics provided opportunities for these adolescent ELLs to "learn new stuff," so that they could expand their knowledge (Eva, 12/15/08). "You learn more than you did before" (Eva, 12/15/08). The forms of knowledge identified by the participants were things such as world culture and science, topics designed to expand their understanding of the existing world. For example, Isabel mentioned that she enjoyed learning about other cultures, for example "something around the world," through READ 180's rBook topics (Isabel, 01/29/09). Xiao Nan learned how U.S. dollars were minted from a science lesson included in READ 180: "I learned that U.S. dollars are made of a special paper with many substances. I didn't know that until I read it." (我知道美國的錢怎麼做出來的，是拿那種專門的紙去做，它是有好幾種物質混合而成。) (Xiao Nan, 01/15/09) Isabel reported that she learned about American history: "In Reading Zone, it talks a lot about the history of America, like how long it has been here, and it's really cool" (Isabel, 11/25/08).

Feeling accomplished: Two participants reported that they felt accomplished by receiving the READ 180 test scores, which served as another source of extrinsic motivation whereas the other participants did not indicate similar motivation to learn. Because of her apparently high scores on READ 180, Isabel felt good about herself and said that, "I feel good about that 'cause I feel good about myself [when I get those scores]." She further noted that the practices in Word Zone and Spelling Zone "help me build on my confidence about it [words]." (Isabel, 12/01/08). Marco felt accomplished as well; after receiving a good score on a task he had completed, he could "show off" his work to his peers (Marco, 12/01/08). However, Eva and Xiao Nan did not

feel a sense of accomplishment from the scores that they received from READ 180. Eva expressed that a good score from READ 180 did not motivate her; instead she reported that, "If I get the score, I want it to be like a prize" (Eva, 12/01/08). Similarly to Eva, Xiao Nan said "I don't care" about the score (Xiao, 12/03/08). Rather, he felt that the design of READ 180 did not motivate him very much and he suggested that the program designers "make it fun when we do practices" (就是感覺作題就像是在玩似的。) (Xiao Nan, 12/15/08). He further explained, "It's not to make it [practices] easy but make it interesting, like adding some activities and steps and all that." (不是說容易，感覺作題要有趣，比如說加入一些活動阿，環節阿什麼的。) (Xiao Nan, 12/15/08). Thus, the findings of this study were mixed in regard to the ELLs interviewed feeling a sense of accomplishment based on the test scores reported by the READ 180 software package.

Multiple goals: When asked to provide suggestions for learning with the computer, some of the participants reported that their extrinsic motivation could be adjusted in a way that would better serve their needs. For example, Eva described that she would like to have "a prize" from READ 180 for her performance (Eva, 12/01/08). Xiao Nan described how READ 180 could have motivated him extrinsically by setting up multiple "small goals" (小目標) to see if he could reach them; then he would like "rewards" (得到什麼玩意兒) after he reaches these small goals (Xiao Nan, 01/27/09). In addition, he suggested that the design of the READ 180 computer component could be more engaging by creating an adventure gaming environment, "It's like adventure…like you go to an island, you make it there, and then you get some rewards, then you go to the next island, and if you make it, you can move on to the next island." (就是像探險...就是先到這個島上來，你成功了，你就可以得到什麼玩意兒，然後就到下一個島，如果你成功了，你可以再到下一個島。) (Xiao Nan, 01/27/09). For Xiao Nan, the value of rewards (or

goals) equaled a sense of accomplishment. He stated that, “When you achieve it, you have a sense of accomplishment. That is, when you achieve a small goal, you’ll feel accomplished.” (當你完成一件事的時候，你就會有種成就感，就是說當你完成一個小目標的時候，你也會感到很有成就感。) (Xiao Nan, 01/27/09). Once again, it can be seen that extrinsic and intrinsic motivation are closely related to the needs and experiences of these ELLs, as indicated by Xiao Nan: “When you achieve these small goals, you’ll want to reach the big goal at the end.” (然後你完成那個小目標的時候，你就會想玩最後的大目標。) (Xiao Nan, 01/27/09).

Synchronizing Learning Pace

The READ 180 software provided opportunities for differentiated learning for the ELLs interviewed by synchronizing their learning paces. This was helpful for ELLs because their linguistic needs were different. The term "Synchronizing learning pace" refers to the situation in which the computer component of READ 180, as a demonstration of instructional functions, allowed learners to determine their own learning pace. Additionally, the ELLs interviewed had the choice to construct their own learning path according to their interests and linguistic needs.

Prompt feedback: The study participants identified READ 180 as providing prompt feedback while they were in the midst of an exercise or after a task as another way to support their individual learning. The feedback was helpful in monitoring their learning performance, as Eva described: “they [READ 180] tell you how you read it and understand it.” As noted earlier, all participants recognized that READ 180 helped them with spelling. Marco specifically mentioned the feedback that helped him spell more effectively through use of the Spelling Zone. A small window appeared whenever he misspelled a word:

> In Spelling Zone...when it is wrong, they show me the right way to type it.... Then when I type it wrong again, they open up a little window. They say this is the right way to spell it. When I type it wrong again, they open up a little window, they say this is the right way to spell it... If I miss it again, they open up a little window again. (Marco, 12/19/08)

This is an example of the prompt feedback provided by the READ 180 program.

Choice: Participants in the study expressed the idea that the READ 180 software offered them the choice to construct their learning. In response to questions concerning their interests, the ELLs participating in this study had the ability to choose a topic of interest to them. In response to their linguistic needs, participants clicked on buttons that offered aids for pronunciation and word meaning. For example, Marco was pleased that READ 180 provided good explanations for words when he clicked on a word meaning:

> They [READ 180] explain really good, like, say for example, I press the word, I accidentally press the word "very" they say "very." "Very" means much, not....they explain so good that I understand better than I did last time...than my dad told me (laugh)! (Marco, 01/21/09)

However, the advanced-level ELLs in the participant sample, Eva and Isabel, said that they did not often use that part of READ 180. Instead, they clicked on words in order to understand their meaning. Eva commented that, "I use it [clicking on words] once in a while 'cause sometimes it [a reading passage] has words I've not heard before so I just click for what it means and it really helps" (Eva, 01/21/09). "I only do it [click on the Word Definition button] for like really long words" (Isabel, 01/21/09). The findings emerging from the data were therefore mixed on the issue of student choice.

Non-responsive: Culture

The ELLs expressed their unique cultural needs and interests and sometimes these were not met by the offerings of READ 180. The findings showed that they were proud of being part of their own culture and hoped to share this cultural understanding with others. However, READ 180's presentation of an immigration lesson created some cultural conflict and did not reflect the ELLs' identities. Moreover, three participants indicated that there was a lack of culturally relevant materials in READ 180. Finally, READ 180 was not always culturally relevant

because the topics did not connect to students' prior knowledge in areas such as extreme sports (e.g. snowboarding) and dramatic topics, which appeared to attract learners' attention without relating to their life experiences very much.

Cultural Identities

Understanding these ELLs' cultural identities helped me to interpret both their cultural needs and their perceptions of learning with the READ 180 program. Two ELLs, Marco and Isabel, expressed that their cultural needs in regard to the *New Americans* lesson of READ 180 offered them the opportunity to reflect upon their immigrant identities in the United States and their pride in their culture.

Cultural pride: ELLs not only expressed a positive value toward their culture in their responses, they also expressed their desire to share their cultures with others. For instance, Marco and Isabel described their feelings of pride for their own cultures. "I like it [the U.S.] but it's not as good as mine [Puerto Rico]" (Isabel, 12/19/08). The way Isabel used the word "mine" suggested that she considered herself Puerto Rican rather than American even though she was an American citizen. As a person who lived within two cultures, Isabel described herself: "I have more stories to tell people" (Isabel, 12/19/08). Marco explained that, "I would like to have people know about Chile and the culture" (Marco, 11/25/08). In other words, regardless of the fact that they lived in the United States, they not only maintained strong cultural identities but were also proud of being members of their respective cultures. However, the ways in which they perceived their cultural identity(ies) were not expressed through the use of READ 180. Rather, Marco's cultural pride, for example, helped me to understand the ways in which he encountered identity conflict in his use of READ 180.

Immigrant identities: The ways in which each ELL perceived themselves as immigrants varied. Although the *New Americans* lesson invited these adolescent ELLs to explore the idea of

their "immigrant" identities, some of them were uncertain as to whether they were immigrants. For example, READ 180 defined "immigrant" as "a person who moves from one country to another." However, Eva, as a Puerto Rican and a permanent resident of the United States, said: "I don't know if I am considered an immigrant 'cause Puerto Rico is kind of a territory of the USA" (Eva, 12/15/08). In other words, the way Eva interpreted "immigrants" from the READ 180 *New Americans* lesson was that she considered herself a U.S. citizen and that the relationship between immigrants and citizens was dichotomous. By contrast, Isabel perceived herself as an immigrant from Puerto Rico in transition to becoming a U.S. citizen and enjoyed learning about immigrants. "I like it [the immigrant lesson] 'cause I'm an immigrant" (Isabel, 12/04/08). Although both Eva and Isabel came from Puerto Rico to live in the United States, they perceived their immigrant identities differently. On the other hand, as a short-term visitor, Xiao Nan noted that he was not sure whether he was an immigrant in the United States. Based on his understanding of the *New Americans* lesson included in READ 180, he did not perceive himself as an immigrant: "I don't think I am because what they [READ 180] mean is people who settle down here." (我還不算是吧。因爲他們 [READ 180] 意思是在這定居。) (Xiao Nan, 12/15/08). However, he subsequently changed his answer in his sixth interview. While pointing to other students around him, he affirmed that he was an immigrant: "They are all citizens but I am not. I am an immigrant." (他們都是 citizen 我不是 citizen，我是 immigrant。) (Xiao Nan, 01/27/09). Xiao Nan remained consistent with the idea of himself as immigrant. His confusion about the term "immigrant" suggested that his immigrant identity was situated with respect to the people with whom he was relating.

Identity Conflict

The data from this study suggest that the *New Americans* lesson in READ 180 did not differentiate ELLs' cultural needs because it did not reflect their identities as immigrants. Identity conflict refers to the ways in which adolescent ELLs see their identities in contrast to the "culturally relevant" materials in READ 180. For example, Marco strongly disagreed with what they had read in the immigration unit, while Eva and Xiao Nan disagreed that they fit into the category of immigrants as described by READ 180, as I will describe.

Uncertain about being immigrants: Although the *New Americans* lesson invited adolescent ELLs to explore the idea of their "immigrant" identity, Xiao Nan and Eva were uncertain as to whether they were immigrants. For example, the way in which READ 180 defined "immigrant" was "a person who moves from one country to another" assuming that all ELLs are immigrants to the United States (Scholastic Inc., 2005, p.9). However, Eva, as a Puerto Rican who lives permanently in the United States, said, "I don't know if I am considered an immigrant 'cause Puerto Rico is kind of a territory of the USA" (Eva, 12/15/08). In other words, Eva considered herself a U.S. citizen rather than an immigrant. By contrast, Isabel perceived herself as an immigrant [emigrant] from Puerto Rico in transition to becoming a U.S. citizen and enjoyed learning about immigrants. "I like it [the immigrant lesson] 'cause I'm an immigrant" (Isabel, 12/04/08). Although both Eva and Isabel came from Puerto Rico to the U.S., the ways in which they perceived their immigrant identities were different. On the other hand, as a short-term visitor, Xiao Nan did not perceive himself as an immigrant: "I don't think I am because what they [READ 180] mean is people who settle down here." (我還不算是吧。因爲他們 [READ 180] 意思是在這定居。) (Xiao Nan, 12/15/08). Perhaps as a result of not considering himself an immigrant, Xiao Nan had no interest in learning about immigrants: "I

don't care what it says." (對內容沒有多大感覺。) "I don't care. Really, I don't. It's [The immigrant lesson] just an article." (我沒有什麼感覺。真的，沒感覺。沒感覺，不就當作普通的文章看。) (Xiao, 12/03/08). In the end, the materials in READ 180 created cultural conflict among the ELLs interviewed by rigidly defining cultural identities such as that of immigrants.

United States is America?: Although Marco enjoyed learning about immigrant experiences, he specifically disagreed with the way READ 180 used the terms "America" and "the United States" interchangeably. He stated that, "I was born in America" (Marco, 11/25/08). While in Chile, he learned that America is a geographical designation rather than a country's name, "Back into my country, they say South America, North America. [But here they say] "Welcome to America!" I don't get it. Why do they say that United States is America?" (Marco, 11/25/08) His words indicated that what he learned in the United States contradicted what he had learned in Chile. His confusion had nothing to do with his English language proficiency; rather, he questioned the sociopolitical implications of using the term America to refer to the United States:

> I don't get this stuff. They [READ 180] say, like, "Welcome to America!" They should say 'United States,' not 'America.' It makes us...our country, like, a little bit, like, lower. We [The United States] are higher. You [Chile] are lower." (Marco, 11/25/08)

While Marco expressed his awareness of the sociopolitical meaning of America, when referring to the United States, he also defended himself as a Chilean in a way to affirm his identity as an "American." In other words, he considered himself both a Chilean and an American.

In addition to using the term America to refer to the United States, Marco felt that READ 180 was trying to force him to assimilate into the "American" way of life because "it says 'Here in America, we do this stuff and this stuff and this stuff, too, since we are in America; not in other countries.' It does put, like, that stuff. And I don't like [the way they say it]" (Marco,

11/25/08). He felt hurt because his own Chilean identity was not affirmed. Marco defended himself by using the third person and saying, "Other people don't like it" (Marco, 11/25/08). He referred to a friend of his who came from Honduras, "'cause I have asked people; I used to ask 'Hey, where are you from?' 'Honduras.' 'Do you like when people say Welcome to America since we are already in America? Do you like that stuff? 'No, I don't'" (Marco, 11/25/08). Despite his limited English, he was very clear about expressing how he and his friend felt hurt by not being considered "Americans" and that what they read in the READ 180 program conflicted with their cultural identities.

The Lack of Culturally Relevant Materials

The lack of culturally relevant materials provided additional evidence that READ 180 did not sufficiently differentiate the learning needs of the ELLs interviewed for this study. The findings emerging from the data showed that sometimes READ 180 was not culturally relevant to ELLs because the content had little connection to his/her own culture and the cultural representation of READ 180 materials tended to focus on the U.S. culture. Additionally, one, Eva, explained that the materials of READ 180 could be misleading because they were culturally generic showing an overgeneralization of her own culture. The findings showed that the lack of cultural relevance in READ 180 amounted to little from his/her culture/country and a generic representation of culture.

Little from his or her culture or country: The findings from this study showed that there was a lack of culturally relevant materials because participants expressed that they found little from their cultures or countries. Eva, Marco, and Xiao Nan reported that the READ 180 materials they had read did not reflect their own culture or native country. For example, coming from China, Xiao Nan said that he could not connect READ 180 with his own native Chinese

culture, "I have not learned about China yet." (目前還沒學到中國。) (Xiao Nan, 12/15/08). What he had learned from READ 180 was "all about American culture" (都是一些美國文化。) (Xiao Nan, 12/15/08). He used an example from a lesson he learned from the Reading Zone, "I learned how to do collage into an art. I find it [collage] very interesting. And it's my first time to see it." (就是用植物然後來做一幅畫，挺有意思的。) (12/03/08). In other words, he did not see his Chinese culture reflected by READ 180 and READ 180 introduced topics which were common to American students but not to him. However, he found it very interesting. Coming from Chile, Marco also said "I read a lot of books from READ 180. There is no book related to Chile.... So I haven't heard anything about Chile" (Marco, 11/25/08). However, the book he had read other than those offered in the READ 180 program, *From Amigos to Friends* (Garcia, 1997), was more culturally relevant (see Chapter 4).

Similarly, as a Puerto Rican, Eva could not relate READ 180 to her Puerto Rican culture as she said that "they [READ 180] don't really talk about my country [culture]." She further explained, "There isn't so much about Puerto Rico. I just learn it from my Mom and what I remembered from Puerto Rico" (Eva, 11/25/08). Each of them reconfirmed his or her comments related to the cultural relevance of READ 180 as I conducted the member checks. In one case, Isabel said: "I have been learning a lot from my culture" from READ 180. She explained that a book that she had read, entitled *Quinceanera Means Sweet 15*[2], specified that the main character was from Puerto Rico. From Isabel's point of view, READ 180 seemed to provide culturally relevant materials for her. In contrast, Eva, who also came from Puerto Rico, commented that READ 180 did not adequately represent her culture. The reason was that Isabel perceived the

[2] *Quinceanera* is a well-known celebration for girls who turned to the age of 15, which is a significant event within the Hispanic culture.

book *Quinceanera Means Sweet 15* as a representation of her Puerto Rican culture, whereas Quinceanera is a common celebration in the Hispanic culture.

A generic representation of culture: Eva noted that there is a generic representation of Hispanic culture in READ 180 because people in so many South and Central American countries speak Spanish: "Sometimes they [READ 180] use it [my culture] for other countries 'cause they speak Spanish so basically almost the same thing but sometimes it doesn't" (Eva, 11/25/08). She acknowledged that her culture differs from other Hispanic cultures but stated that the READ 180 program over-generalized the "culture" of Spanish speakers. As a Spanish speaker, she further explained that words in Spanish "could mean different things that you really don't know" in different Spanish-speaking countries (Eva, 11/25/08). Eva also acknowledged the general representation of the immigrant lesson: "It [READ 180] just talks in general, like how many people from different countries" (Eva, 12/15/08) come to the U.S. as immigrants. Thus, the findings of the study suggested that cultural over-generalization was an issue with the READ 180 software program.

Not Connecting to Prior Knowledge

ELLs' prior knowledge was culturally shaped as knowledge and was grounded in their previous experience. Differentiated learning occurred when instruction became connected to ELLs' prior knowledge or previous experience. However, READ 180 was not culturally relevant because topics were unfamiliar for ELLs or irrelevant to their life experiences. The topics that they identified were extreme sports and dramatic topics, which greatly caught their attention, but did not speak to their prior knowledge.

Extreme sports: The ELLs interviewed in this study thought that READ 180 provided topics related to extreme sports in order to capture the attention of its readers. Both Eva and Isabel described they felt scared when they read about dangerous sports in the READ 180

software program. Eva had never snowboarded in her life. When being asked if she was familiar with snowboarding, she said: "I am not at all" (Eva, 12/19/08). She continued: "Because I don't see the snow when [until] I was two years old and I never [went] snowboarding in my life." She felt that snowboarding was a dangerous sport and that one had to practice as much one could and "gear up" in order to snowboard safely. She added that, "In the software, it's kind of danger [dangerous]. To snowboard, you need to have a lot of practice... the right gear" (Eva, 12/19/08).

When watching a video clip about kayaking while using the READ180 program, Isabel had never tried kayaking and would never want to try it as she said, "I'm a girl who is interested in sports a lot but I would never do kayaking. It's scary!" (Isabel, 01/21/09) Her selection of the kayaking topic may be the result of her interest in sports; however, she became too scared to consider kayaking because it seemed life-threatening to her. As an alternative interpretation to account for Isabel's frightened state, the instructional design of READ 180 may be oriented more to boys' preference with a focus on adventure in representing sports lessons.

Dramatic topics: As they reflected on some of the things they had read in the READ 180 program, the four adolescent ELLs expressed their feelings about these dramatic topics with words such as "scared/scary" (Eva, 12/15/08; Isabel, 01/21/09; Marco, 01/21/09), "emotional" (Isabel, 01/21/09), "gross" (Marco, 12/11/08), and "yuck" (Marco, 12/11/08) to express their negative responses to what they had read or seen. On the surface, their responses indicated that READ 180 materials made them feel emotionally uncomfortable. On a deeper level, these topics were detached from their actual life experiences. For example, Marco described one of books that he had chosen to read entitled *Oh! Yuck!* from Scholastic Inc. He reflected on what he had read in his reading log, "Really gross!", "Really yuck!"

> In notes, I put "Mummys = [means] no organs." They have no organs. Okay, next day I read *Oh, yuck!* then that's how I am finishing it. The worms are really awesome. They crawl, they...they are under the ground and then some people eat those and then they giggle. (Marco, 01/21/09)

Both in oral and written forms, Marco expressed that the book made him feel disgusted as he said "really yuck!" (Marco, 01/21/09). As he reflected on the book *Moby Dick*, of which READ 180 provided a simplified version, he commented on how "bloody and awful" *Moby Dick* of READ 180 was (Marco, 01/21/09). In this study, Marco described a bloody scene from *Moby Dick* of READ 180 where people were stabbing into the whale. Moreover, in discussing another READ 180 book that he had read titled *Odd Jobs*, he described "Alligators are creepy" (Marco, 01/21/09).

As another example of the dramatic topics contained in the READ 180 materials, Isabel described some adventurous experiences as she reflected on the materials of READ 180. Isabel recalled a topic that she read in a READ 180 book about how people stay in a submarine for 48 days under the water without seeing sunlight. "It's about how people go without sunlight, how people go underwater. The U.S. machinery... how they go, like, 48 days, under the low sea, and they don't see day or night" (Isabel, 12/01/08). Although they caught ELLs' attention, these types of topics were not what ELLs could relate to their own life experiences.

Non-responsive: Language

READ 180 did not respond to the four ELLs' linguistic needs because of the diverse English language levels and various linguistic backgrounds. Both created instructional challenges to meet each learner's linguistic needs. Beginning-level learners needed extra language support, while advanced-level learners wanted more challenged texts to read. All of the ELLs interviewed encountered reading comprehension difficulties, at the text- and word-levels. Moreover, beginning-level ELLs indicated a need for conversational language, whereas

the READ 180 software focused primarily on reading. The overemphasis on oral reading disengaged them in reading and levels of understanding. The READ 180 books responded to the needs of the beginning-level ELLs but not to that of the advanced ELLs. As such, they sought other avenues that responded to their cultural and linguistic needs and interests.

The learner profiles of the participants in the study also showed that these adolescent ELLs were passionate readers who had diverse interests and were actively engaged in reading. They valued reading and they read books that interested them.

Experiencing Reading Comprehension Difficulties

While participants were using READ 180 materials, they experienced difficulties with respect to their comprehension of English, indicating that they needed more support for reading comprehension. The difficulties with reading comprehension experienced by these participants occurred on two levels: the text-level and the word-level. All of the study participants experienced text-level difficulties, indicating that their linguistic needs for comprehending the text, such as coherence, inference making, and identifying main ideas, were not adequately addressed by the READ 180 program. Beginning- and intermediate-level ELLs experienced word-level difficulties, indicating that READ 180 did not sufficiently scaffold users for understanding word meanings. To accommodate their linguistic needs, respondents demanded concrete examples and visual aids that supported both text-level and word-level comprehension.

Text-level: Each of the participants revealed in their interviews their linguistic needs in relation to increasing their reading comprehension as they encountered text-level difficulties. As READ 180 provided a fill-in-the-blank exercise to assess students' text-level reading comprehension in the part of the program called "Success Zone," "you pretty much gotta read the passage really well so then on the Success Zone you know what to fill in" (Eva, 01/21/09). However, the participants felt that these questions were "hard" (Eva, 11/25/08, Xiao Nan,

11/25/08) or "confusing," so that they could not get it right (Marco, 12/01/08). Eva reported that she "sometimes" did not know what word the program was asking for, "any one [word or phrase] could go in to the blank" (Eva, 11/25/08). They "really don't know which one goes into the blank" and she reported that "I sometimes take a guess." (Eva, 11/25/08). In other words, she was not good at making inferences. Indicating that his skill in this area was weak on the Success Zone, Marco reported that, "I guess right but the first time, I got it wrong. The second time, I got it wrong again. The third time, I got it right."

Isabel found that the visual aids were not sufficient to support her text-level comprehension. Although READ 180 provided video clips to help readers understand the topics (as described in Chapter 5), Isabel did not find the video clips helpful in identifying the main idea as she said that, "some of the video has not enough information [for the passage]. Some videos are a minute long and they tell you all those things [too much information]" (Isabel, 12/04/08). She continued to say that, "they [videos] don't tell you the main idea that you want to know" (Isabel, 12/04/08). According to Isabel, finding the main idea of a passage was a challenge and extended language and visual support through the use of video was occasionally helpful to students in order for them to discern the meaning of the passage.

Both Eva and Xiao Nan also experienced text-level comprehension difficulties when reading some of the READ 180 books. Having difficulty with seeing a specific text as coherent, Eva described that she could not understand a READ 180 book that she had read called *Wait until Dark*. It was "confusing" to her because it "told you something that starts with different stories" (Eva, 01/21/09). She assumed that the book was about "a scary story" but it was not as scary as she thought: "It was supposed to be horror but it was not that scary" (Eva, 01/21/09).

This indicates that she had not obtained adequate examples or evidence to see the story as scary and had difficulties conceptualize the new knowledge.

In another case, Xiao Nan reported that his limited English prevented him from reading a book that was beyond his comprehension level but that nonetheless appealed to him. Xiao Nan specifically mentioned that he had avoided reading READ 180 books that he could not understand. He "put it back" (放回去) after he found that he could "not understand" (看不懂) *Terror*, when he saw that it was "not [his] level" (不是我那個等級的) (Xiao, 12/03/08). The book *Terror* was categorized as Level Four whereas Xiao Nan had been ranked between Level Two and Three by READ 180. "I won't read them [books] even if I want to. It must be something I can read." (想看的，我也不看。能看才行。) (Xiao, 12/03/08). As soon as he found a text that was "hard to understand," he chose "not to finish reading it." (還有一點難理解，所以就沒看了。) (Xiao Nan, 12/15/08). He was discouraged when reading this READ 180 book because it only met his interest but not his level of language proficiency.

Word level: Word-level difficulties were expressed by the lower-level ELLs interviewed for this study, indicating the need for more support in vocabulary building within the READ 180 program. While the Reading Zone included both buttons as aids for pronunciation and definition, Xiao Nan reported that he did not find the word definition buttons helpful or understandable. "It [Reading Zone] explains words well but it's just not clear to me." (它能解釋清楚，可是我理解起來比較難。) (Xiao Nan, 01/15/09). He felt that his limited English was what prevented him from understanding word meanings as he emphasized that the READ 180 program "explains words well but I still don't understand some words even when the computer [READ 180] explains to me." (因爲有些詞，光透過電腦來解釋，有時候我還不能完全弄明白) (Xiao Nan,

01/15/09). Thus, he wanted more scaffolding for understanding, such as the addition of more detailed explanations of words. This indicated that simply providing word explanations was insufficient to helping him understand a word. On the other hand, the other three ELLs (all Spanish-speaking students) were satisfied with the definition buttons and found them beneficial in aiding them in learning English. Marco also described his word-level difficulty as he reported that he could not understand some words: "Sometimes I know the word but sometimes I don't and I have no idea what it means" (Marco, 12/19/08). When encountering a word he did not know, he turned to a dictionary for its meaning, "when I don't know the word, I go to get the dictionary" (Marco, 12/19/08). However, the use of a dictionary was not an adequate strategy for him. For example, Marco approached the teacher for the meaning of "groundhog," "'cause I didn't know the word [groundhog] but when I am looking [looked] up in the dictionary, they say 'wood chuck' and then I didn't know. I looked up the meaning of 'wood chuck.'" Xiao Nan also described the way that he used an electronic Chinese-English dictionary whenever he encountered word-level difficulties. He reported that "[*Creature Infest Local Schools*] was kind of hard, I had to use the electronic dictionary to look up some words" (有一些難度，我得用電子辭典去瞭解一些詞。) (Xiao Nan, 11/25/08). His electronic dictionary was bilingual, which offered him a translation from English to Chinese. These examples indicated that lower-level ELLs demanded more supports for understanding word meanings. While READ 180 provided some scaffolding strategies in order to promote reading comprehension, these were not sufficient for Marco and Xiao Nan, the lower-level ELLs included in the participant sample.

Needed concrete examples: Because of the insufficient aids to support his learning with words, Xiao Nan specifically noted that he needed more concrete examples for word-level comprehension. READ 180 provided word definitions that were not sufficient for Xiao Nan. He

said that, “It would be better to have an example to explain the word.” (舉個例子或者是什麼的) (Xiao Nan, 01/15/09). Conversely, he also demanded that, “I can understand it [word definition] if it is in English. But you need to give me some examples.... For example, I didn’t know what ‘bother’ was. If you could give me an example, like, ‘I am working. Don’t bother me.’” (有時候用英文解釋，我也可以明白的，但是你要舉一些例子。比方說，剛開始我不知道 bother，你可以舉個例子，比如說，I am working. Don’t bother me.) (Xiao Nan, 01/15/09). In other words, he felt that his current English proficiency did not prevent him from understanding word definitions, but rather that the lack of examples provided by READ 180 posed a problem for him.

In expressing a desire for more concrete examples, Xiao Nan suggested that READ 180 “add more word explanations” (加上一些單詞的意思解釋), adding that he wanted READ 180 to provide him with more explanations rather than mere definitions. He said that “words can be explained to be more specific and concrete (Xiao Nan, 01/15/09). It would be easier to understand.” (就是把詞的意思解釋比較詳細一點、具體一點。比較容易理解。) (Xiao Nan, 01/15/09). As an alternative, he wished for “some simple sentences that are easy to understand, or explain the word better.” (一些比較容易解釋的句子，容易理解的句子，或是一些定義方面來解釋詞。) (Xiao Nan, 01/15/09). The comments of the ELLs interviewed for this study therefore reinforced the need for more concrete examples within READ 180 materials.

Need visual aids: Although visual aids were available as a scaffold for the ELLs interviewed in this study in order to meet their linguistic needs, they were not always available or adequate in some parts of the READ 180 program to support their text-level and word level reading comprehension. To support her text-level comprehension, Isabel suggested that “They

[READ 180] can make... the video a little longer so that we can know what they are talking about cause sometimes if you don't get the exact thing [the main idea of a passage] then you don't know" (Isabel, 12/04/08). To support his word-level comprehension, Xiao Nan suggested that if it had "some pictures, it would have been better to understand it [a word]." (或者是配個圖什麼的，就比較容易理解。) (Xiao Nan, 01/15/09).

Need for Conversational Learning

The data from this study also suggested that READ 180 did not respond to ELLs' linguistic needs because the current opportunities for speaking practice were limited to reading a passage aloud through a recording. In contrast, the beginning- and intermediate-level ELLs interviewed expressed their desire for oral language--conversational English. The reading aloud practice was criticized by Xiao Nan, Eva and Isabel, who reported that it disengaged them from reading and that they preferred to read silently. Additionally, Marco and Xiao Nan identified their need to practice their oral English skills more extensively. The opportunities for participants to speak occurred when they were asked to record a word or a passage themselves; in contrast the participants wished that they had had opportunities to practice their spoken English with the aid of a computer.

Oral reading: While the recording practice offered by READ 180 allowed learners to practice their oral reading skills (see Chapter 4), these ELLs specifically indicated that the recording practice of Reading Zone left them feeling disengaged from the material. Xiao Nan said that he "felt bored" with reading aloud (我就覺得有點煩。) (Xiao Nan, 12/01/08). In a follow up interview, Xiao Nan made the additional comment that "I prefer to read silently to read aloud" (我比較不喜歡大聲讀，我比較喜歡默讀。) (Xiao Nan, 03/16/09). These feelings were also echoed by Eva: "I don't like to read it out loud. I just like to read it to myself. I guess

it kinds of helps you to read it faster if you practice it." (Eva, 01/21/09). In Eva's estimation, reading fluency can be achieved without doing much oral reading. In a similar vein, Xiao Nan indicated that, "I used to do that [read aloud] but I found that it's not helpful" (以前是，可是我後來發現這個方法不太好。) (Xiao, 12/03/08). He felt that the reading aloud exercises did not help him understand a text better than silent reading or, at least, he felt he needed to be more focused on reading comprehension than on articulation. Reading along silently allowed him to focus on contextual cues and to use a dictionary. Xiao Nan continued: "I could know the meaning in that sentence. If not, I'll look it up in the electronic dictionary." (從那句子當中就可以看出來，然後記不住的，就用電子詞典查一下) (Xiao Nan, 12/03/09). Xiao Nan reported that the recording or reading aloud exercises were unhelpful because he already knew most word meanings: "I know most of the words so I think it's kind of a waste of my time [if I have to read the whole passage in Reading Zone]." (因爲大部份的詞我都認識，所以有點浪費時間。) (Xiao Nan, 01/15/09). In other words, he found the oral reading practice unhelpful.

Moreover, Isabel reported that she disliked having to record herself because it disengaged her from the reading process: "I like reading a whole lot of stuff but [except for] the Reading Zone 'cause you have to record it. I don't like recording" (Isabel, 01/21/09). She continued that, "I don't like recording....I don't like it. It's weird" and she further explained that, "I never record it that much and it was weird for me to record" (Isabel, 12/01/08). In other words, Isabel's use of the word "weird" indicated that reading aloud [recording] was not a familiar language task that she had previously experienced with and that for her it had no value. However, this could also possibly mean that she was just uncomfortable with hearing her voice through the recorder and her complaints about this section had little to do with the quality of the technology offered by READ 180.

Conversational English: The beginning- and intermediate- learners in this study, Xiao Nan and Marco, perceived their linguistic needs as focused on speaking practice; however, the READ 180 software was designed to focus on reading practice rather than on speaking practice. Xiao Nan expressed that his linguistic needs existed more in writing and speaking than in listening and reading: "I can only listen and read in English. I can't speak and write." (我現在的英文能力只達到聽和讀的能力。說和寫我不會。) (Xiao Nan, 12/03/08). He also reported that READ 180 did not help him "with speaking and writing" (Xiao Nan, 12/03/08). When asked how this program could be improved to meet his ELL needs, Marco said he would "add a new zone called Conversation [Zone]" (Marco, 01/21/09). He wanted the computer component of READ 180 to provide him with the opportunity to practice his conversational English. He noted that READ 180 "doesn't help me how to speak [conversational] English" (Marco, 12/19/08). Although participants worked with the teacher and other peers in their rotations, most of the time they worked on READ 180 rBook worksheets and provided feedback to students in their reading logs rather than engaging in group discussions (see Chapter 4).

Marco expanded on his linguistic needs by further describing his idea of a "Conversation" Zone: "I would add a new zone called, Conversation. For example, they [the computer] talk to you and you, with the microphone, got to answer and then they record it" (Marco, 01/21/09). He felt that he was not given opportunities to practice his conversational English when using READ 180. He wanted dialogical practice such as, "'Hi! My name is John. How are you?' 'Good, my name is Maria.' And then they say 'How old are you?' 'I'm 15. What about you?' And then they answer back until it's finished" (Marco, 01/21/09). The process of using language socially involves cognitive thinking and Marco said he used a computer program in another class that had a component that was similar to his idea of a Conversation Zone. He further explained:

> We had to put them [sentences] together and the words, we say it and we record it and then the computer says it. We check if it's the right way how to say it. If it's yes, we put 'Yes.' If it isn't, we put 'No.' (Marco, 01/21/09)

Marco's idea of a Conversation Zone thus delineated having interaction with the computer which could actually respond to him verbally.

The Passionate Readers

The learner profiles of these four ELLs indicated that they were passionate readers who had strong and diverse interests in different types of texts and were engaged in reading. However, their interests and experiences with reading came from popular teenage literature rather than from the READ 180 materials. In fact, the advanced-level ELLs clearly expressed the view that READ 180 books were not as engaging as were long chapter books. Furthermore, this response indicated that READ 180 paperback books did not correspond with the interests of ELLs with more advanced English language proficiency due to its simplified texts.

Like to read: The ELLs interviewed in this study were passionate readers because they already liked to read and they had strong motivation and engagement in reading. Three participants expressed that they enjoyed reading outside of the READ 180 program. Xiao Nan expressed this explicitly by saying that, "I like to read." (我喜歡看書。) (Xiao Nan, 01/27/09). When I asked Xiao Nan whether READ 180 made him want to read more, he said that, "I can't like reading more because I already like to read a lot. I can't like more than that." (我本來就喜歡閱讀，沒法更喜歡了。) (Xiao Nan, 01/15/09). During his member check interview, Xiao Nan confirmed that READ 180 did not motivate him to read, but rather it helped him understand a text: "I don't think that the program motivates us to read. It does help me expand vocabulary and understand it better." (這個 program 讓我們去喜歡讀書，我沒有體驗到。 我覺得這個 program 提高了一些單詞積累、理解一些。) (Xiao Nan, 03/16/09). Eva also stated that she

"liked to read" and that she read "at home" (Eva, 01/27/09), and whatever she didn't finish reading at school, she would continue to read at home. In response to the question of whether he was an "engaged" reader, Marco responded with emphasis: "Yeah. Yes. I do. I do like to read" (Marco, 01/27/09).

ELLs were also were motivated to read by searching for texts that fit their interests. Eva, Marco and Isabel described their engagement as they wanted to read books recommended by their peers or to read long chapter books. They described both their intrinsic and extrinsic motivation. For example, Isabel said she was intrinsically motivated to read as she "[doesn't] want to stop reading" (Isabel, 12/04/08). "I wanna read thick books" (Isabel, 12/04/08). While it took her three weeks to finish a long chapter book, she expressed her excitement about having a new book to read: "It's good 'cause now I have new books to read" (Isabel, 12/04/08).

Isabel continued to express her desire to read the popular teenage *Twilight* fiction series (Meyer, 2005), "There is another book that I wanna read. It's *Twilight*." However, she did not have access to it but "my friend has it [*Twilight*] so I can borrow it from him. He said I can borrow it." This illustrated her motivation and desire to read for her own enjoyment and as a result of peer influence, "Everybody is kind of reading the book. I got curious... I started reading it [*Twilight*]" (Eva, 01/21/09).

Enjoyed reading non-READ 180 chapter books: As passionate readers, the four participants enjoyed reading non-READ 180 chapter books that met their individual interests in the ESOL class during the study period. In fact, this was largely due to the fact that READ 180 books did not correspond with the interests of ELLs interviewed, particularly those who had better reading proficiency. For example, Eva and Isabel both commented that they do not like to read the READ 180 books. Eva said that, "Sometimes I don't like to read books over there

[meaning READ 180 paperback book]" (Eva, 12/01/08). She would also avoid re-reading the READ 180 books: "I don't want to read the books [READ 180 books] again" (Eva, 12/01/08). She further explained her lack of interest in READ 180 books, commenting that, "They [READ 180 books] are pretty easy for me.... The books over there [referring to READ 180] are short, not long" (Eva, 12/01/08). Similarly, Isabel expressed her lack of interest in reading these books without a specific critique of the books: "The READ 180 books are good but I don't think I am interested in them that much" (Isabel, 01/21/09). Isabel further expressed that she attempted to read some of the READ 180 books but found them boring. For example, "I read the book, like some pages, and I am not that interested so I don't read them [READ 180 books]" (Isabel, 01/21/09). Her reading logs also indicated that while she only read two READ 180 books, *Love Letters* and *The Good Fight*, she also read six non-READ 180 books, including *Twilight* (Meyer, 2005), *Sisterhood of the Traveling Pants* (Brashares, 2003), *Dicey's Song* (Voigt, 1982), *Homecoming* (Voigt, 1981), *Ruby Holler* (Creech, 2002) and *Princess Academy* (Hale & Holzbrinck, 2005).

Although Marco did not express his lack of interest in the READ 180 books, he agreed with Eva that they did not "take me that much time" (Marco, 01/21/09). He liked to read books from READ 180, particularly the graphic novels. However, he read books from library as well. For him, the library books and those included in READ 180 were "even" because both had their advantages and disadvantages:

> Sometimes I like the READ 180 books, [but] sometimes not...and the library books sometimes. Yeah, I guess I like both of them so. [The library comic books] don't have color but here in READ 180 does. So that's kinda one disadvantage of the library [books] and but an advantage of READ 180 books. Yeah. That kinda makes them even. (Marco, 01/27/09)

Instead, participants such as Eva, Isabel and Marco, were all currently enjoying reading chapter books. Eva noted that, "I like chapter books...long chapter books" (Eva, 12/01/08). She

expressed how seriously engaging the *Twilight* book series was as she began reading one book and ended up reading the whole collection. "I ended it [up] reading the whole collections [of *Twilight*]. It was really good" (Eva, 01/21/09).

Isabel described another book she was reading: "it [a chapter book] was really fun reading" (Isabel, 12/04/08). Although Isabel expressed her uncertainty about her reading abilities with respect to reading chapter books, she challenged herself, stating that, "At first, I wasn't sure 'cause I haven't read a book with 26 chapters before" but after spending three-weeks reading on it, she said "it was really fun reading" (Isabel, 12/04/08).

Marco expressed how reading the chapter book *Indiana Jones* (Jones, 2008) was more engaging than was seeing the movies made from the books. When describing *Indiana Jones*, Marco said that the movie did not follow the plot of the book very closely: "I read the book, a part of it. Then I watched to the movie.... I like it better when I read than watch some movie" (Marco, 01/27/09).

With less dense and complicated linguistic structures, the READ 180 reading materials met the needs of ELLs for lower-level reading comprehension practice. This was particularly true for Marco and Xiao Nan, who seemed to increase their comprehensible input with reading a simplified text. However, this was not the case for advanced ELLs such as Eva and Isabel. Eva wanted more books from READ 180 while Isabel avoided reading READ 180 books because they were too simplified to meet her language learning needs. Both of them chose to read long chapter books from the library, which provided them with richer vocabulary and denser sentence structures with which to meet their linguistic needs.

Non-responsive: Technology-Not Synchronize Learning Pace

While technology provided a potential to individualize learning, the findings from the data showed that READ 180 did not always synchronize the learning paces of the ELLs interviewed.

First of all, they did not have the choice to skip the part that they found disengaging. Second, the feedback for their oral reading performance was not helpful because it only measured their rate rather than accuracy. Finally, the mono-speed narration made it difficult to respond the diverse language levels.

Limited choice: The responses of the participants in this study suggested that ELLs disengaged when READ 180 did not synchronize with their learning paces. The findings of this study showed that students did not experience enough choice when using READ 180 software or the audio books.

Although the data from this study suggests that READ 180 allows ELLs to "do it by yourselves" (Marco, 11/25/08), some of the students felt that their choices were limited. For example, Eva used the phrase "have to read" several times to describe her disengagement from READ 180 when she felt that she was forced to read. She remarked: "It pushes you to read even if you don't want to" (Eva, 01/27/09). She further explained that, within the context of the structure of the Reading Zone section, she was disengaged "'cause like from the Reading Zone...the program... you have to read it and understand it, and answer the question. Even if you don't want to, you have to do for the good" (Eva, 01/27/09). In other words, when some students felt forced to complete all of the assignments in the program, they became disengaged from the materials. In a follow up interview, Eva explained that, "I don't feel like reading but I still have to because it's a requirement for READ 180" (Eva, 03/24/09. Marco did not comment that he felt pushed to read but rather he said that when he became "tired" and "lazy," the reading task became "difficult" for him to complete (Marco, 12/01/08).

Eva and Xiao Nan revealed that their sense of disengagement resulted from feeling as if they had limited choices in their instructional options. The most salient example of this was in

regard to the use of the recording part of the READ 180 program. Eva explained that her disengagement from the program was exacerbated by the fact that she "has to read." Given the fact that students have to either listen to or record the passages they are working on, she felt that her choices were limited: "If you don't want it to read to you, you gotta record it, so you still have to read" (Eva, 01/27/09). Similarly, Xiao Nan stated that the use of the READ 180 recording device did not offer him ownership, "[be]cause I learn after reading it [the passage] a few times. But I have to read it every time I am in it. Otherwise, I can't do the questions." (因爲讀幾遍我就讀會了，每次進去還是得讀，不讀的話，就沒辦法做後面的題。) (Xiao Nan, 12/01/08). Thus, the limited choice of reading materials appeared to discourage ELLs' engagement with the READ 180 program.

Inaccurate feedback: Additionally, respondents received inaccurate feedback to their read aloud task because it only measured their speech rate rather than accuracy. They reported that the feedback on their speech recording was not as helpful or, in some cases, made no sense to some of them. For example, Marco commented that the feedback he had received after he completed his recording in READ 180 was problematic because it only showed him how quickly he read a passage per minute (rate) without measuring his accuracy. He jokingly expressed that READ 180 did not recognize whether he had missed reading something: "[After doing recording], it [READ 180] says that I always do it right even though sometimes I miss something...and like...I miss something...they [READ 180] say I've tried and everything. It's very cool" (Marco, 01/21/09). In other words, READ 180 only measured the speed of the user's speech without recognizing the parts that the user skipped. Eva shared this view as did Marco, who remarked that, "If I did [miss reading a sentence while recording], it [READ 180] won't say anything." This seemed to suggest that the feedback for an individual learner's read aloud task

was not only limited but also that its measurement was problematic in that it did not provide accurate feedback for learners. As opposed to ELLs' identification of synchronous learning, the next section illustrates the ways in which READ 180 failed to synchronize the ELLs' learning.

Not follow the audio narration: The emphasis on read aloud practices disengaged the ELLs from their reading. According to the testimony of the participants in this study, the use of audio CDs that provided audio narration for the READ 180 program was not necessary for advanced language learners. Eva and Isabel revealed that they preferred not to have the auditory support when they read because they did not follow the audio narration. For example, Eva said that, "I don't like when the program [READ 180] reads to me" (Eva, 01/27/09). She "tried to do it once" but the pace of the CD seemed "slow" to her, implying that her reading speed was faster than that of the narrator (Eva, 01/21/09). Eva described her inattention to audio narration: "I am not following it [audio CD]. I just want to read the book" (Eva, 01/21/09). This indicated that not only did she not follow the narrator but also that her reading speed was faster than the narration. Furthermore, Eva and Isabel expressed that they did not like audio books. Isabel noted that, "I don't like audio books" (Isabel, 01/21/09) and she "would rather read them [books only]" (Isabel, 12/01/08). She further mentioned that she preferred not to have this kind of auditory support: "It [audio CDs] helps me how to say the word but I think if I can figure it out myself, I know I have accomplished something. That's how I feel good about myself." (12/03/08). The phrase "how to say the word" indicated that Isabel thought that the audio CD provided more scaffolding for decoding than what she felt she needed.

The findings from this study indicate that availability of audio narration met the needs of beginning- and intermediate-level ELLs, such as Xiao Nan and Marco. However, the narration did not offer them enough choice in order to accommodate their individual learning paces.

Because he did not have the choice to select the part on which he would like to focus, Xiao Nan did not follow the narration line by line. Instead, he selectively listened to it by focusing on the meanings of unknown words: "When it [the narrator] reads to you, I've known most of the words in a passage…only a couple words that I don't know. I can just focus on the meaning of these new words." (那個領讀，整篇文章當中，大部份的詞我都認識，就部份新詞不認識，就只要看新詞解釋就行了。) (Xiao Nan, 01/15/09). In other words, Xiao Nan was more concerned with his understanding of a word than with its pronunciation.

Marco enjoyed reading with audio books that included an audio CD. However, he was sometimes distracted by the narrator because he did not have the choice to skip a part to which he did not want to listen. He said that, "I kind of listen to it and do something else, like, I do things like [using his gestures to show that he likes to play around when he reads]" (Marco, 12/11/08). He became distracted when there were "breaks" or when the narrator did not read the lines of a text but instead asked questions that were not shown in the book, "'cause there are breaks that are not in the book. [For example,] when they [audio CDs] go like 'Ding!' and then they [Audio narrators] said something about the book, not reading on the book. So I go like that [meaning he is wandering]" (Marco, 12/11/08). In other words, he was only able to follow the narration when he had the choice to skip the part of which he did not want to listen.

Conclusions

This chapter described a theory of the ways in which the four adolescent English Language Learners interviewed in this study perceived their use of the READ 180 software program. The theory, Differentiated Learning, represented an understanding of the ways in which READ 180 met, or failed to meet, the four participants' individual needs and interests. This study found that the four participants had different experiences with the READ 180 reading program. However,

the data showed that students were engaged with the reading program as the program responded to their needs, whereas they were disengaged as it failed to respond to their unique cultural and linguistic needs as well as to their interests. The responsive aspect showed that students' cultural needs included the ways in which READ 180 responded to some students' cultural backgrounds and their immigrant experiences. However, the non-responsive aspect showed they were disengaged due to cultural conflict, the lack of culturally relevant materials, and the lack of connection to their prior knowledge or previous experiences. The responsive aspect showed READ 180 provided repeated reading practices and scaffolding on both decoding and comprehension. In the non-responsive aspect, the reading comprehension difficulties encountered by the participants suggested that they needed more support for comprehension. Beginning- or intermediate-level ELLs desired more opportunities for conversational learning. The responsive aspect indicated that the integration of technology in READ 180 provided an incentive to motivate ELLs and synchronized their learning paces with choices and feedback. The non-responsive aspect indicated that technology did not sufficiently synchronize their learning pace because of limited choice in instructional functions, inaccurate feedback, and the redundant auditory supports. These findings, which I conceptualized as culture, language, and technology, will be discussed in the next chapter.

CHAPTER 6
DISCUSSION

Introduction

This qualitative study was designed to explore the perceptions of four adolescent English Language Learners (ELLs) with respect to their use of the READ 180 reading intervention program. The theory that emerged from the findings showed that adolescent ELLs' experiences with READ 180 were informed by their cultural and linguistic backgrounds. The way in which the Differentiated Learning theory is situated within the READ 180 context is essential to understanding the needs and interests of ELLs. Moreover, the discrepancy between responsive and non-responsive aspects showed that meeting the cultural and linguistic needs of ELLs may be oversimplified if teachers only focus on the aspect that READ 180 responds to their needs. These findings are essential to filling the gap existing in the current literature on READ 180 as none of the previous studies focused on the use of the reading program and its application with culturally and linguistically diverse students. In this chapter, I argue that the diversity of backgrounds and the diverse levels of language proficiency among the ELLs in this study made it difficult for READ 180 to provide differentiated instruction in order to respond to the ELLs' unique needs. The Differentiated Learning theory inspired educators to rethink the ways in which READ 180 responds and do not respond to the unique needs and interests of ELLs. This chapter is structured to discuss the major findings from the following three perspectives: (1) culture, (2) language, and (3) technology.

Culture

The findings from this investigation indicated that the READ 180 program was responsive when the ELLs who participated in this investigation were engaged in learning about immigrant experiences in the *New Americans* lesson of READ 180, whereas it was not

responsive as there was some cultural conflict among the participants interviewed questioning the cultural appropriateness of the content materials in READ 180 (Hoover & Patton, 2005; Rothenberg & Fisher, 2007; Tomlinson, 2003). In this section, I make an attempt to address the relationships between ELLs' identity development and their learning from culturally relevant pedagogy (CREDE, 2002; Gay, 2000; Ladson-Billings, 1995). I argue that READ 180 materials may oversimplify the cultural needs of ELLs and, as the non-responsive aspect indicates, the materials needed to be culturally specific in order to meet their needs.

Culture, Identity and Learning

Nieto (2004) noted that, "culture is integral to the learning process, but it may affect each individual differently" (p. 148). She further explained that culture is important to students and something that they are usually proud of, but that, "students also learn that *culture is unimportant* in the school environment" (p. 320, emphasis in original). This insight about the unimportance of culture is reflected in the findings of this study: some participants reported that, although READ 180 was designed for ELLs, it offered limited culturally relevant materials. Additionally, some participants experienced cultural identity conflict. Finally, topics that were about extreme sports and dramatic topics prevented participants from connecting the READ 180 materials to their life experiences.

Research indicates the importance of affirming the cultural identity of immigrant children as a way to meet their cultural needs and to promote their literacy engagement when learning English as additional language (Cummins, 2000; Nieto & Bode, 2008). Cummins (2001) noted that the degree of incorporation of ELLs' native language and culture into classroom curriculum can be a significant predictor of academic success. Consistent with research that addresses the importance of cultural identity in ELLs' literacy practices, the findings from this study showed that these participants described their understanding of the importance of integrating cultural

identity as part of their learning experiences with READ 180. As one participant, Isabel, stated, "It's important to know where you are right now but it's also important to know about your own culture." She also expressed a sense of pride about her multicultural experiences and recognized them as resources that not all individuals share: "I have more stories to tell people [as a result of my experience here in the U.S.]" Similarly, Marco said that, "I would like to have people know about Chile and the culture." He expressed his cultural needs through the books that he chose to read such as *From Amigo to Friends* (Garcia, 1997) and the READ 180 book, *The Star Fisher*, both of which were about immigrant children in the United States. The ways in which the cultural needs of the ELLs interviewed for this study were expressed through the attempts to negotiate their cultural identities within their new learning environment supports the research claims of several scholars in the field (Cummins, 1996, 2001; Cummins et al., 2007).

As an example of ELLs' attempts to connect to the READ 180 topics, the findings from this study showed that ELLs valued the input of integrating a unit about U.S. immigrants into the *New Americans* lesson in READ 180. This lesson, however, created both opportunities for and challenges to the identities of these young participants. When READ 180 is responsive, the opportunity provided by this lesson invited the students to explore their understanding of immigrant trends within the United States in a way that allowed them to reflect upon their own immigrant experiences. As Isabel noted, "I like it [the immigrant lesson] 'cause I'm an immigrant." Learning about the experiences of other immigrants seemed to reassure these ELLs about their own immigrant identities.

However, the findings of this study showed that READ 180 was non-responsive by showing a general representation of immigrants that were more concerned about life in the

United States than about the lives of fellow compatriots back in their own native countries. Nieto (2004) delineated her ideal lesson for teaching about new Americans when she wrote,

> What is "American" is neither simply an alien culture imposed on dominated groups nor an immigrant culture transposed indiscriminately to new soil. Neither is it an amalgam of old and new. What is "American" is the result of interactions of old, new, and created cultures. These interactions are neither benign nor smooth. (p. 319)

Nieto's words explain that the complexity of a new immigrant experience, which should not just begin with general experiences but rather with a deep understanding of the cultures that immigrant students have had both in the United States and in their countries of origin. Such general expressions of immigrant experiences shed light on assimilation into American culture rather than making an attempt to understand immigrant experiences from the perspective of ELLs' home culture. As an example, Marco expressed his resistance to the READ 180 materials as he felt the lesson in READ 180 tried to assimilate him into American society: "Here in America, we do this stuff and this stuff and this stuff, too, since we are in America; not in other countries.' ...And I don't like [the way they say it]." Presenting immigrant experiences on the new land without exploring their past stories seemed to devalue their home culture and may create tensions for them to fit into American society.

While the ELLs interviewed for this study echoed the difficult lives that immigrants shared, three respondents did not perceive that the *New Americans* lesson represented their individual realities. Each of their statements contrasted to READ 180's definition of the immigrant as "a person who moves from one country to another" (Scholastic Inc, 2005, p. 9). First of all, Marco was resistant to accepting the ideological framework presented in READ 180 in that the phrase "United States" was used synonymously with the word "America:" "Why do they say that United States is America?" He explained that referring to the United States as America was misleading and that he felt as if it positioned his native country as subordinate to the United States. "It

[referring to the U.S. as 'America'] makes us...our country, like, a little bit, like, lower." His remarks indicated his self-awareness and cultural identity and his knowledge of the asymmetrical power relations between the U.S. and other countries located in the Americas, such as Chile (Freire, 1990; Freire & Macedo, 1987). This echoed Bourdieu's (1986, 2000) notion that language is indeed a symbolic capital and using "America" and "United States" interchangeably was a form of symbolic violence which make a Chilean student felt emotionally hurt (Shannon & Escamilla, 1999).

Perhaps because he did not see his native culture reflected in the materials, Xiao Nan was uninterested in learning about immigrants in the aforementioned READ 180 lesson, due to the fact that he did not consider himself an immigrant. He viewed the word "immigrant" as referring to someone who planned to stay in the United States permanently, and, in contrast to this, he only intended to be in the country for a temporary period of time. He refused to identify with an immigrant identity when he said that, "I don't think I am an immigrant." As such, he resisted reflecting on the *New Americans* lesson: "I don't care what it says." "I don't care. Really, I don't. It's [the immigrant lesson] just an article." The meaning that Xiao Nan constructed about immigrants revealed an understanding of different types of immigrants in the United States, depending on the length of their stay. To echo his identity, a lesson that reflected their immigrant experiences should delve into ELLs' diverse cultural backgrounds.

The experiences of Marco and Xiao Nan suggested that they both had as strong sense of themselves and their respective cultures, whereas the messages that they were receiving from the READ 180 materials challenged their confidence by simplifying the immigrant experience, ultimately making it generic. This kind of schooling experience often leads to resistance on the part of ELLs as Nieto (2004) explained,

> Although students from dominated groups might partially internalize some of the many negative messages to which they are subjected every day about their culture, race, ethnic group, class, and language, they are not simply passive recipients of such messages. They also actively resist negative messages through more positive interactions with peers, family, and even school. (p. 321)

This quote illustrates how Xiao Nan's and Marco's resistance can be understood as a way in which they actively sought to maintain their pride about their cultural identities.

Although she encountered similar challenges to those of other immigrants, the third participant, Eva, did not perceive herself as an immigrant in the manner that READ 180 assumed. This is because she was from Puerto Rico and thus had U.S. citizenship status. Zentella (2000) used the term "in-migrant" to refer to Puerto Ricans and those like Eva who come from colonies or territories of the United States (p. 141).

Based on their experiences with READ 180 materials and their responses to their own immigration statuses, Marco, Xiao Nan, and Eva showed that the meanings of the terms "immigrant" and "America" are both culturally and political shaped. As an expression of their cultural needs, all three students wanted their individual, unique, and reflective identities to be made clear, rather than to have the READ 180 materials categorize them all as "American immigrants."

Cultural Knowledge

The non-responsive aspect indicated that some cultural needs of the ELLs interviewed for this study were not met because there was a disconnection between the ELLs' cultural knowledge and the READ 180 content materials. In other words, students' cultural needs may not be met because there was some cultural discontinuity between the READ 180 content materials and the participants' life experiences (Hoover & Patton, 2005; Rothenberg & Fisher, 2007; Tomlinson, 2003). This finding is especially important since READ 180 is marketed as a program that offers culturally and linguistically diverse materials for students from all non-

English-speaking backgrounds. Prior research, however, has not investigated the representation of cultural diversity in the READ 180 program materials, an issue indicated in the problem statement in Chapter 1.

The types of topics offered in the READ 180 software package and the ways in which the participants described these topics illustrated the ways in which READ 180 did not respond to ELLs' cultural needs. For example, READ 180 topics were not designed in a way that connected the readings to the ELLs' prior knowledge or previous experiences. Many of the topics were dramatic or adventurous in a similar manner to those commonly known and enjoyed by American adolescents. However, Eva noted that she was not familiar with topics such as snowboarding. This indicated that the READ 180 materials were unrelated to the ELLs' life experiences. Topics such as extreme sports, dramatic events and uncommon life experiences were distant from the ELLs' cultural knowledge or their "funds of knowledge" (Moll et al., 1992, p. 132). Moll et al. (1992) contended that the school curriculum needs to integrate students' knowledge as a way of scaffolding them in order to assist them in learning a new knowledge.

The findings of this study also raised the issue of adopting reading materials made by corporate companies for adolescent learners, and whether or not the topics generating by these companies were appropriate for ELLs. Researchers have questioned the appropriateness of integrating books selected by corporate companies (Lamme, 2003). Lamme contended (2003)

> Since most children prefer books about their own culture and experiences, it is important to provide minority students with large numbers of books by minority authors and about minority issues.... It is impossible for teachers to tailor their classroom libraries to accommodate individual children's book preferences if the books are pre-selected by an outside corporation. (p. 39)

The ways in which Marco and Isabel described some of the READ 180 books, such as *Moby Dick*, *Oh! Yuck!* and *The Good Fight* as being violent or having disturbing images, seemed to support Lamme's (2003) criticism. This has called into question about the quality of

modified materials designed by corporate companies on students' reading engagement. Some of the books, as modified from authentic literature, seemed to keep ELLs away from reading the classical piece and books that reflect their own culture and experiences.

Language

READ 180 responded to the linguistic needs of the ELLs interviewed for this study in that they learned about the English writing system (e.g. spelling, word recognition) through repeated practice exercises with a variety of scaffolding strategies (e.g., auditory and visual aids) (Bender, 2002; Rothenberg & Fisher, 2007). These scaffolds certainly demonstrate differentiated instruction by providing support for language learning (Herrera & Murry, 2005; Hoover & Patton, 2005; Rothenberg & Fisher, 2007; Tomlinson, 2003). However, both the diversity of the learners and the diversity of the language learning needs made READ 180 a challenging task in terms of responding to all of the learners' needs. Some of the ELLs interviewed, such as Eva and Isabel, needed to have a more sophisticated language learning opportunities while others, such as Xiao Nan and Marco, who possessed less advanced spoken English skills, needed to develop their oral language skills (Herrera & Murry, 2005). Thus, in this language section, I will discuss issues related to scaffolding ELLs in order to meet individual ELLs' needs, the need for learning conversational English. Additionally, I will expand my discussion to second language reading comprehension in order to address the needs of ELLs in reading in regard to the reading difficulties they had encountered when the READ 180 failed to respond to their linguistic needs.

Scaffolding ELLs

Scaffolding for comprehensible input and language production is essential to meeting the linguistic needs of ELLs (Bransford, Brown & Cocking, 2000; Fitzgerald & Graves, 2004). In order to make input more comprehensible (Krashen, 1982, 1985), multiple forms of information representation are essential for ELLs in order to take what they have learned and transform it into

knowledge. Stephen Krashen's (1985) notion of comprehensible input (*i*+ 1) suggests that ELLs need to be able to understand what they have received through sight and sound. They also need to be challenged on their current level of knowledge, but with adequate academic supports. Consistent with Krashen's (1982, 1985) argument, the responsive aspect showed that the ELLs who participated in this study learned about the English language system and experienced a variety of scaffolding strategies with READ 180.

These strategies included non-linguistic (auditory, visual aids, identifying the main idea via graphics) as well as linguistic (questioning) aids to promote ELLs' text comprehension. Video clips offered scaffolding for ELLs in order to make input more comprehensible by connecting the new concept to the ELLs' background experience. As Marco stated: "the video makes the topic and me [connects me to the topic] without reading." Graphics helped ELLs to construct a text; as Isabel stated: "We read a story together and after that we made a web and in the middle, it's about the main idea and on the web you have to support the main idea. That helps me find what the story is mainly about." The questions they described were multiple-choice and were intended to assess students' reading performance. However, the participants described they were helpful in promoting their higher order thinking. As Xiao Nan noted, "You have to think very hard on some exercises to get it [answers to the questions] right," these scaffolding strategies were helpful to the ELLs in fostering their understanding of texts, as confirmed by the literature (Derewianka, 1990; Echevarria, Short, & Vogt, 2004; Fitzgerald & Graves, 2004).

However, non-responsive aspect indicated that the scaffolds provided by READ 180 seemed to be inadequate in meeting ELLs' diverse linguistic backgrounds and language levels (Herrera & Murry, 2005; Hoover & Patton, 2005; Rothenberg & Fisher, 2007; Tomlinson, 2003). The beginning- and intermediate-level ELLs demanded more support in learning vocabulary

while their advance-level peers wanted more challenging books. For example, as a beginning-level ELL, Xiao Nan indicated that he needed more concrete examples for his vocabulary development because the current support provided by READ 180 was not sufficient for him. Although READ 180 introduced and emphasized key vocabulary for him, these scaffolding strategies were not adequate for him to understand the meaning and he demanded more connections between key words and their contexts through his use of the exemplary word "bother." He desired multiple scaffolds, both "visual" (pictures) and linguistic (exemplary sentences), to help him understand new word meanings.

Xiao Nan's language difficulties may be the result of his native language, Mandarin Chinese, not sharing a linguistic relationship with English. As a native Chinese speaker, his language seemed to create additional challenges compared to that of the three Spanish- speaking students (Birch, 2007). Birch (2007) pointed out that the logographic systems of the Chinese language make it difficult for Chinese ELLs to learn the English alphabetic system. Hence, there should be extra scaffolds available for vocabulary learning and text comprehension for ELLs whose native language contains a different writing system from that of English. Although studies showed the significance of using a variety of scaffolding strategies for ELLs (Gibbons, 2002), there is a lack of literature exploring the relationships between scaffolding strategies and the various language levels and different native languages of ELLs.

Another dimension in which READ 180 failed to differentiate the needs of the ELLs interviewed for this study was in the use of simplified texts because it only met the needs of beginning- and intermediate-level ELLs. The ELLs in this study perceived that the READ 180 books were relatively "short" and "easy" compared with library books. McKay (2006) cautioned teachers who worked with ELLs that research in L2 reading indicate inconclusive findings

toward the use of simplified materials; these materials have both strengths and limitations. One strength is that a simplified text may provide the opportunity for beginning- or intermediate-level ELLs to comprehend a text better through less complex sentence structures and more common words (Crossley, Louwerse, McCarthy, & McNamara, 2007). However, the less complex lexical and syntactic features of a simplified text may prevent learners from being exposed to the elegance of authentic materials and create a disadvantage for them in developing their academic language, particularly in their writing (Hinkel, 2003). In this study, the challenge that READ 180 created may have disengaged the ELLs from their reading. For example, commenting on READ 180's simplified version of *Wait until Dark*, Eva did not feel that the book was as scary as she had originally thought it might have been. This might be explained by either her inability to understand the text or the result of simplifying the text in a way that it prevented her from understanding the essence of the story.

Conversational Language

The participants of this study, especially Xiao Nan and Marco, who both came to the United States less than two years before the study, indicated a need for developing their oral language skills. However, one of the reasons that READ 180 failed to respond to the linguistic needs of ELLs was because speaking practices were limited to oral reading fluency, whereas the ELL students interviewed desired more conversational English in an authentic environment.

Differentiated instruction for culturally and linguistically diverse students begins with an understanding of second language acquisition principles showing that ELLs need both oral and academic proficiency for social and academic purposes (Rothenberg & Fisher, 2007). Cummins (2003) made a distinction between conversational language and academic language. He termed the former as Basic Interpersonal Communicative Skill (BICS) and the latter as Cognitive/Academic Language Proficiency (CALP). According to the research, conversational

language takes at least two years to acquire, while academic language takes five to eight years to reach the same level as that of native English speakers. The primary implication from this finding is that ELLs need to develop both academic and conversational oral language in English.

Indeed, since he came to the United States a year and half ago, Marco expressed greater urgency in his language learning needs than did Eva and Isabel who demonstrated more advanced oral proficiency. The imaginary "Conversation Zone" suggested by Marco illustrated his need and desire for practicing his English-speaking skills and developing his communicative competencies. Marco described what he expected to do in the Conversation section: "We had to put them [sentences] together and the words, we say it and we record it and then the computer says it." This may indicate that he wanted to have the opportunity to use the language with the computer in a social context.

The special focus on reading in READ 180 at the cost of speaking in an ESOL curriculum is mentioned by Harper, Platt, Naranjo and Boynton's (2007) study. Harper et al. (2007) showed how the accountability feature of the federal education law, the No Child Left Behind (NCLB) Act (2001) has narrowed the language-learning curriculum to mere reading skills and discarded the integration of other language skills. Students in this study reported that the speaking practice in the READ 180 software was limited to repetition or reading aloud passages, rather than allowing for speaking for authentic communicative purposes (Lotherington, 2005). Given the fact that most studies of READ 180 focused on its use with struggling readers (e.g., Brown, 2006; Caggiano, 2007; Papalewis, 2004), the lack of conversational language, as a significant feature of ELLs' linguistic needs, has not yet been addressed in the literature related to READ 180.

Understanding Reading Comprehension

Promoting ELLs' reading comprehension is an important goal for ESOL instruction and a way to meet the linguistic needs of ELLs. The view on comprehension in the literature varies in three main ways: top-down (Goodman, 1968; Smith, 2004), bottom-up and the interactive model (Birch, 2007). The top-down model focuses on a readers' background knowledge that helps him or her to attain higher level reading comprehension abilities, which are also known as high-level reading strategies. The bottom-up reading model emphasizes lower level processing strategies such as sounding out words and word recognition, as a way to promote higher level reading comprehension. The ideological discrepancy between top-down and bottom-up reading models has created tensions in reading policy, a conflict which was termed as *The Reading Wars* (Allington, 2002; Loveless, 2001; Krashen, 2004, 2008; Pearson, 2004). The third model, named the interactive model, perceiving reading as the interaction between the reader and the text in both L1 (LaBerge & Samuels, 1974; Rumelhart, 1977; Stanovich, 2000) and in L2 reading (Birch, 2007; Carrell & Eisterhold, 1983). According to the interactive reading model, a successful reader uses both high-level and low-level reading strategies to read.

Examining the reading comprehension difficulties that ELLs had in this study helps understand their linguistic needs in order to facilitate their reading comprehension. The responsive aspect showed that the bottom-up reading model dominated within READ 180, as respondents identified their absorption of the English language system, including decoding, spelling, and word pattern identification. It was also through repeated reading practice designed to develop automaticity and to promote fluency that the ELLs attained reading comprehension. These strategies are also considered low-level reading strategies.

However, these ELLs' reading difficulties may have revealed that they need more high-level reading strategies than low-level ones. The non-responsive aspect indicated that the ELLs

studied continued to encounter text-level reading comprehension difficulties while they were in the Success Zone, which was aimed at assessing their reading comprehension skills after they had demonstrated the low-level reading strategies. For example, it took Marco three attempts to choose the answer that best summarized the original passage. This implied that he needed more practice with the passage summary, which was one of high-level reading strategies. In a similar vein, Isabel mentioned her difficulties in identifying the main idea of a passage even after she had watched a video clip that provided her with background knowledge. As an advanced learner, Eva's difficulty with the assignment was her inability to see coherence of the book *Wait until Dark* as she read the story as two separate stories. However, as an alternative explanation, her reading difficulties may be a result of the fact that the text was too simplified to show the complexity of the story, particularly when she felt that it was not as scary as she thought, as I discussed earlier. These difficulties that the ELLs encountered may indicate that they need high-level reading strategies. In addition, beginning- or intermediate-level ELLs, such as Xiao Nan and Marco needed more lexical strategies as they expressed their comprehension difficulties at the word-level. These implied that they needed more vocabulary support from READ 180. In a word, the linguistic needs of all of the ELLs interviewed indicated that they needed high-level reading strategies, and the lower-level ELLs needed more support for building their vocabulary base in addition to fluency and comprehension.

Technology

The findings of this study indicated that the use of technology in READ 180 provided the opportunity to respond to ELLs' needs and interests. In the previous section, I noted that READ 180 (including technology and non-technological aspects) met linguistic needs of the ELLs studied with scaffolds to help them read more effectively. Beyond the cultural and linguistic needs of ELLs, this section will explore the ways in which the technological component of

READ 180 promoted ELLs interest level and learning preferences with respect to their motivation and individualized learning.

Motivation

All of the ELLs interviewed described their affective engagement with the READ 180 software. Specifically, the integration of technology in READ 180 motivated all ELLs with the access to a multitude of topics that appealed to them, spelling practice exercises and a sense of accomplishment to contribute to their reading engagement. As Marco noted, "The computer part is what I like the most 'cause with the computer you hang out and it's so cool." Such affective engagement may be explained by Krashen's (1985) affective filter hypothesis, which indicated that a computer can provide ELLs with a low-anxiety learning environment. Krashen's (1985) affective filter hypothesis suggested that the emotion of a language learner influenced their language learning experiences. Thus, a safe and low-anxiety learning environment contributes to ELLs' language acquisition experiences.

Xiao Nan provided another example to support Krashen's Monitor Model (1985) that a safe, secure learning environment reduces a language learner's anxiety and could promote his/her language learning. Xiao Nan was obviously at the initial stage as he stated that, "I can only listen and read in English. I can't speak and write." Thus, he was more able to comprehend (listen and read) than to produce (speak and write) English. Those ELLs who were at the silent period, such as Xiao Nan, may have been more comfortable interacting with the computer because they were less intimidated by the errors they made while using it (Hasselbring, Goin, & Taylor, 2000; Krashen, 1985; Swain, 1985). Learning with the computer seemed to offer these ELLs a comfortable and low-anxiety environment.

As noted in Chapter 2, most of the literature related to READ 180 focused on the motivation and achievement aspects of the program as it is used for struggling readers as well as

for ELLs (Barbato, 2006; Brown, 2006; Campell, 2006; Gentry, 2006; Kratofil, 2006; Papalewis, 2004; Wiktowski, 2004; Woods, 2007). While several studies showed positive influences on the ways in which READ 180 motivated struggling readers to be more engaged, no prior studies focused on READ 180 and its effect on motivating ELLs to read. However, Short and Fitzsimmons (2007) indicated that there are differences in motivation between native-English-speaking, struggling readers and ELLs: the former group tended to exhibit weak intrinsic motivation and needed extrinsic motivation, while the latter group, ELLs, demonstrated both strong intrinsic and needed extrinsic motivation. The findings of this study confirmed their study in a way that ELLs were attracted to learning with READ 180, as a demonstration of extrinsic motivation, and that they already had an intrinsic motivation to read and learn English (Dörnyei & Schmidt, 2001).

The responsive aspect demonstrated that these four ELLs were passionate about reading in the broader context of their everyday lives. For example, Eva, Marco, and Xiao Nan all considered themselves avid readers as they continually said they "like to read." Eva reported that she read at home, thus marking herself as a genuinely engaged reader. Xiao Nan did not consider himself a more passionate reader as a result of his use of the READ 180 software program. Isabel enjoyed reading the popular fiction *Twilight* series (Meyer, 2005). She was also willing to challenge herself by reading difficult texts. All respondents were self-engaged readers because they found pleasure in reading. With their intrinsic motivation, these ELLs chose to read books that interested them without being limited by the READ 180 books. Eva and Isabel were engaged in reading popular novels, such as the *Twilight* series (Meyer, 2005). Marco was interested in reading literature related to immigrant experiences, while Xiao Nan was the one who read the largest number of READ 180 books. In a similar fashion to that of Guthrie (2004),

this study showed that these four ELLs were engaged in reading at school outside the context of READ 180. In other words, they had already developed intrinsic motivation to read since they were already avid readers. If it is true that ELLs are motivated to read, then providing an incentive to read should be an option not a necessity as the READ 180 publisher had assumed (Scholastic Inc., 2009c, n. p.).

Individualized Learning

The role of technology provided an individualized learning environment for students to learn at their own pace (Keeler, Richter, Ander-Inman, Horney & Ditson, 2007; Rothenberg & Fisher, 2007). A well-paced learning environment benefits learners because some learners may need extra time to understand and learn vocabulary than do others (Rothenberg & Fisher, 2007). When READ 180 responded to their needs, it seemed to synchronize their learning paces with choices and prompt feedback. These findings affirmed the conclusions from the NRP (2000) report that technology can be an empowering tool for reading instruction. The findings of this study showed that ELLs were self-paced with the assistive learning tools (e.g., definition and pronunciation aids) available to them while interacting with the computer.

However, the non-responsive aspect also indicated that some of the choices were limited and that the feedback was inaccurate. The discrepancy between responsive and non-responsive aspects informed readers that they should consider the challenges of the current software design of READ 180 in order to support ELLs' learning. First of all, the software design of READ 180 may fall short of meeting an ELL's learning preferences. The programmed nature of the reading materials followed by the completion of multiple-choice questions did not adequately engage the study participants. Suggesting an improvement to the READ 180 software, Xiao Nan expressed he would be more engaged if the design allowed him to play an adventure game during which he could earn small reachable goals. His words confirmed Gee's (2007) contention that a good

computer game usually engaged and motivate learners by allowing them to solve problems or overcome obstacles. Marco seemed to be more engaged in doing role-play when he proposed his imaginary "Conversation Zone." According to Keeler, Richter, Anderson-Inman, Horney, and Ditson (2007), differentiated instruction using technology involves three elements: multiple forms of representations, modes for self-expression, and means for engagement. It appeared that the design of READ 180 only offered multiple forms of representations whereas ELLs desired more means for engagement.

Having the choice to decide which support aids they need was also important to the ELLs interviewed for this study. Although the integration of audio narration provided phonological support for readers in order to develop their reading fluency, advanced learners such as Eva and Isabel found it disengaging. While they had the option not to read audio books, they seemed to choose not to listen to the audio narration. The advanced ELLs reported that audio narrations were redundant or unnecessary because ELLs may already acquire a mastery of phonological awareness without the use of audio narration. While READ 180 provided multiple forms of representation in order to meet a learner's needs, individualized learning should mean making choices available for ELLs in order to fit their learning preferences.

Finally, the findings of this study showed that the self-measurement of READ 180 in terms of ELLs' oral reading fluency might be problematic. The ELLs interviewed for this study noted that the software only provided feedback on their rate on the oral reading aloud task without informing them of their accuracy on the task. However, this measurement was not aligned with the definition of the NRP report (2000), which indicated that, "Fluent readers are able to read orally with speed, accuracy, and proper expression" (p. 11). Furthermore, the scholarship argued

that the assessment of reading fluency must consider both rate and accuracy, rather than one or the other (Altwerger, Jordan, & Shelton, 2007).

In this study, using technology to promote an English language learner's oral reading was only accomplished through recordings in which learners could practice their oral reading skills. However, the READ 180 software program was not able to detect the quality of an ELL's oral reading and determine its accuracy. The validity of measuring students' oral reading performance may not only call into question but also mislead ELLs to focus on their reading rate more than on their accuracy or comprehension.

Conclusions

In this chapter I have discussed the key findings of this study and related them to the current literature with respect to four adolescent ELLs' learning experiences with the READ 180 software program. From the findings that emerged from the data collected in this investigation, I have argued that the diverse backgrounds and linguistic levels of ELLs make the READ 180 reading program less able to differentiate their learning needs. From a cultural perspective, the READ 180 reading program needed to more adequately offer the ELLs culturally specific teaching and learning practice. Also, READ 180 needed to integrate more culturally relevant materials for ELLs. From a linguistic perspective, the current instruction of READ 180 did not respond to beginning- and intermediate-level ELLs in developing their conversational language. All ELLs needed more support for high-level reading strategies more than for low-level ones. From a technological perspective, the use of technology in READ 180 motivated and engaged the ELLs in learning English. In addition, READ 180 needed to individualize learning in order to accommodate each learner's preferences and provide accurate feedback. In the next chapter, I will provide a number of conclusions based on the issues I have raised and indicate the

implications for second language acquisition and pedagogy. I will also provide recommendations for further research.

CHAPTER 7
CONCLUSIONS

Introduction

This study described how four middle school ESOL students reflected on their experiences with using the READ 180 software program. The study investigated the perceptions of four eighth grade English Language Learners (ELLs), two from Puerto Rico (U.S. territory), one from Chile, and one from China, in one ESOL class at a middle school using READ 180. Using student interviews as the primary data and classroom observations and documents as secondary data, the findings of this investigation showed that the diverse backgrounds and language levels of the ELLs under study made it difficult for the READ 180 reading program to meet their individual needs. READ 180 was unable to respond to the unique needs of the ELLs. I have used culturally relevant pedagogy (Au, 1980; Gay, 2000), literacy engagement (Cummins, in press; Guthrie, 2004) and differentiated instruction (Tomlinson, 2003; Rothenberg & Fisher, 2007) as conceptual frameworks to examine the ways in which the READ 180 reading program addressed the needs of culturally and linguistically diverse students. In this chapter, I will summarize the key findings of the study. Then I will draw pedagogical implications from the findings. Finally, I will provide some practical suggestions for future research investigation.

Summary of Findings

The main research question explored the ways in which the READ 180 reading program reflected the cultural and linguistic backgrounds of the ELLs under investigation. This inquiry was driven by the three sub questions concerning the ways in which the ELLs participating in this study ELLs perceived READ 180 in terms of its reflection of their cultural and linguistic backgrounds and the ways in which their perceptions were aligned with the READ 180 objectives. This study found that the four participants had individual experiences with the

READ 180 reading program. The diversity of the cultural as well as the linguistic backgrounds and language levels of the ELLs studied made it difficult for one reading program, READ 180, to respond to the unique needs and interests of all ELLs. The Differentiated Learning theory represented an understanding of the way in which READ 180 met the four participants' general cultural and linguistic needs and interests and failed to meet respondents' unique needs and interests. This theory was insightful in helping to explain the usefulness of READ 180 for different levels of ELLs.

The research question explored the ways ELLs perceived their cultural backgrounds as being reflected in READ 180. The theory indicates that ELLs' cultural backgrounds were met in general but were not met to their unique cultural backgrounds. The ways in which the *New Americans* lesson included in READ 180 responded in a basic way to some of the students' cultural backgrounds was in echoing their general immigrant experiences in the United States. The ELLs interviewed for this study were engaged in learning about these shared experiences, which illustrated and highlighted the difficulties of life in the new land for newly-arrived immigrants. However, READ 180 did not sufficiently correspond with the ELLs' cultural backgrounds because some of ELLs experienced a sense of identity conflict, in which they saw their identities in contrast to the culturally relevant materials and they disagreed with the notion that they fit into the stereotypical categories of immigrants presented in the materials. The non-responsive aspect indicated that READ 180 was not culturally relevant because the content had little connection to the ELLs' various cultures and tended to focus on the culture of the United States. ELLs were exposed to topics that were not familiar to their life experiences, suggesting that there was little connection to their backgrounds.

The research question b explored the ways ESOL students perceived their linguistic backgrounds as being reflected in READ 180. The responsive aspect indicated that the READ 180 reading program provided repeated reading instruction and scaffolding strategies to ELLs. The repeated reading exercises showed that that READ 180 provided fluency and practice toward understanding for the ELLs in this study. These practice exercises were on both decoding and comprehension. However, the non-responsive aspect indicated that the ELLs under study encountered reading comprehension difficulties, which suggested that the ELLs needed more support for comprehension. All of the research participants indicated a need for high-level comprehension; the lower level ELLs in the study also needed more word-level comprehension support in order to expand their vocabularies. Additionally, the beginning- or intermediate-level ELLs interviewed expressed their needs for more opportunities for conversational learning. Finally, the ways in which the ELLs participating in this investigation encountered reading comprehension challenges indicated that they needed high-level text comprehension strategies more than low-level ones.

Research question c investigated the use of technology in facilitating middle school ESOL students' learning. The responsive aspect showed that the READ 180 software program motivated and engaged participants with topics that were intrinsically interesting to them and provided them with an individual learning environment. The integration of technology in READ 180 provided an incentive to motivate ELLs and synchronized their learning paces with choices and feedback. However, the non-responsive aspect showed technology did not sufficiently synchronize their learning pace because of limited choice in instructional functions. Feedback for their oral reading fluency may be inaccurate because it only measured their rate rather than

accuracy. Moreover, the audio narration in the software program and audio CDs seemed to be redundant for advanced ELLs.

Pedagogical Implications

Closing the achievement gap for culturally and linguistically diverse students involves considering the ways in which curricula can best meet the needs and interests of these students (Au, 2006). However, the meaning of the phrase "meeting the need" is subject to a variety of interpretations that the publisher and the users of READ 180 may not share. Based on the findings of this study, I will provide some practical suggestions for teachers and administrators who have integrated the READ 180 software program into their curricula. Some of the suggestions are also intended for teachers who work directly with ELLs. A number of questions emerge from this study: What do the data from the interviews with these four ELLs inform teachers about their cultural and linguistic needs and interests? What forms of technological use would be ideal for culturally and linguistically diverse students? In discussing these questions, I follow the three dimensions in my findings and discussion chapters: culture, language, and technology.

Culture

As the READ 180 reading program was originally sold for both ELLs and struggling native-English speaking readers, with the assumption that the needs of ELLs and those of struggling readers are one and the same, this study illustrates that there is a vital need for teachers to differentiate between the needs of ELLs and those of struggling native-English speaking readers. Reeves (2004) reminds teachers who work with ELLs that equality does not necessarily lead to equity if the former is interpreted as the same as the latter; that is, if all groups receive the same treatment and instruction. To promote educational equity for ELLs, the curricula for ESOL classes need to address the cultural diversity among the ESOL student

population by reflecting ELLs' diverse cultural backgrounds. A program designed for ELLs that dos not acknowledge their unique cultural backgrounds inevitably falls into the fallacy of treating all students the same. The practice of sameness does not lead to equity is strongly indicated in the findings of this study.

There are three suggestions for teachers to consider in terms of meeting the cultural needs of ELLs. First, culturally relevant pedagogues suggest that teachers' knowledge of their students' identities must be an integral part of the learning process (Au, 1980; Cummins, 2000). Without considering students' cultural identities in their learning context, teachers run the risk of marginalizing their students. As such, a reading program intended for use in ESOL classrooms should reflect the priorities of a democratic society by engaging students in making meaning of their existing world, rather than providing eye-catchy dramatic topics, such as the ones commonly used in the READ 180 software program.

Moreover, culturally relevant materials have to offer to ELLs a way to connect their prior knowledge to new knowledge (Au, 1980; Cummins, 2000). A program that teaches "how to read" should invite all learners (not limited to culturally and linguistically student population) to "read the word" but also to "read the world" (Freire & Macedo, 1987). When topics are introduced, they should allow learners to think critically about social issues. That is, topics should allow learners to reflect on their roles as adolescents but also requires a deep reflection on the social and psychological aspects of being adolescent learners.

Third, a lesson about immigrant experiences is certainly an opportunity to engage ELLs in exploring their identities. As educators, we may assume that all of our new-arriving students in the United States are "immigrants." However, these four newcomers revealed in their interviews that their experiences and identities were unique. This reality, which emerged from the data,

contrasts with the definitions and ways in which "immigrants" are commonly described in textbooks and software programs, such as READ 180. Teachers should keep in mind that social constructs such as "immigrant" or "America" are not objective and static; rather, they are subjective, dynamic, and relate to a student's cultural experiences. Discussing these concepts with students can be a great opportunity for teachers to understand ESOL students' perceptions and experiences in the United States. Teachers would be wise to understand and respect the ways in which students perceive their immigrant statuses; for example, Marco and Xiao Nan represent a majority of ESOL students who come to the United States without pursuing U.S. citizenship. They may maintain a stronger sense of identity to their own country and culture than those who consider themselves U.S. citizens, such as Eva and Isabel. Although they are both Puerto Ricans, their perceptions of their immigrant status could influence their bicultural identities and learning experiences.

Language

With the growing number of immigrant students in the United States, working with ELLs with diverse backgrounds and language levels is an issue that all teachers face. Harper and de Jong (2005) suggested that effective ESOL instruction means that teachers must understand that the cultural and linguistic needs of ELLs vary, as they exist at different developmental stages, in order to provide appropriate scaffolds and accommodations for ELLs. In the following discussion, I will provide three suggestions for teachers in order to meet the linguistic needs of ELLs. First, providing comprehensible input for ELLs is one of the goals for ESOL instruction (Krashen, 1985). This should not exclude using an ELL's native language, particularly for those ELLs who have acquired an adequate level of English (Cummins, 2000). Therefore, READ 180 should take advantage of their L1 as a way to scaffold their text comprehension and vocabulary development. Although the READ 180 program included five languages in the software

components, the current linguistic support did not include Xiao Nan's native language to meet his needs as a Mandarin speaker. Next, developing ELLs' communicative competence needs to be part of the ESOL curricula because it creates learning opportunities for ELLs to socially interact with both native and non-native speaking peers (Schulz, 2006). Cummins' (2003) BICS/CALP distinction informs teachers that ELLs require both conversational and academic language practice. When READ 180 is integrated, it directs the curriculum to academic English with an emphasis on reading skills with limited conversational English and peer supports. Teachers need to allow ELLs to use the English language in different social settings, and these students requested this as part of their overall reading and language acquisition program.

Finally, the New London Group's (1996) concept of multi-literacies inspires educators to re-think the literacy practice for culturally and linguistically diverse students. That is, literacy practice should not only include reading and writing in English but rather should be broad enough to encompass both ELLs' in-school and out-of-school literacy practices, with their native language absolutely included. The context of this study (see Chapter 4) indicated that these students had engaged in multiple forms of literacy, including reading novels in their native language, searching for information, building an online community with others, and playing games. However, these practices were not reflected in READ 180's reading materials, nor were they integrated in school experience. As the New London Group pedagogues (1996) remind us: "negotiating the multiple linguistic and cultural differences in our society is central to the pragmatics of the working, civic, and private lives of students" (p. 60). It is with this goal that literacy education can empower culturally and linguistically diverse students.

Technology

As the No Child Left Behind (NCLB) act provides funding to improve students' reading achievement, one of the common uses of NCLB funding is in purchasing reading software

programs that often cost school districts thousands of dollars. However, the findings from this study showed that READ 180 did not respond to the individual needs of ELLs, especially those at higher English language levels, and thus it is questionable whether or not to recommend that schools to purchase programs like READ 180. The findings of this study seem to confirm Krashen's (2004) suggestion that allowing students to have access to books that interest them is always the best way to promote reading. Administrators are encouraged to consider both the strengths and the limitations of the READ 180 reading program when making executive decisions for using it in an ESOL classroom or for English language learners.

They ways in which computer technology is used for ELLs is an issue of educational equity (Warschauer, Knobel, & Stone, 2004). Warschauer (2005) noted the role of technology for language learning is that of more than just a tool,

> ...the computer should not be viewed as an end in itself but rather as just another tool to promote language learning....Both teachers and researchers need to take into account both how this mediation occurs at the micro level and also how it intersects with, and contributes to broader social, cultural, historical, and economic trends. (p. 48)

For those teachers whose school districts have adopted READ 180, it is important to understand and evaluate the strengths and limitations of the program, as indicated by the comments of the ELLs interviewed in this study. However, it is more important to consider the learning opportunities that have been excluded due to the implementation of READ 180. For example, the context of the study showed that these adolescent learners reported that they had already been engaged in researching and social networking for academic and leisure purposes despite that fact the frequency of these activities was unknown.

For administrators or teachers who are making executive decisions about whether to purchase a particular type of educational software with school funding, it is important to consider the pedagogical orientations of educational software (Niederhauser & Stoddart, 2001).

Educational technology for ELLs may not only scaffold reading but also allows students to construct their understandings of the text (Cummins, Brown, & Sayers, 2007).

It is equally important for all teachers to know how technological integration reflects their teaching philosophies. As Cummins et al. noted, "[t]he failure to realize the educational potential of technology has much more to do with *pedagogy* than with technology itself" (Cummins et al., 2007, p. 91, emphasis in original). The integration of technology could possibly "amplify existing forms of inequity" (Cummins et al., 2007, pp. 96-97). Thus, teachers who use of technology to promote literacy practices for culturally and linguistically diverse populations must seek an understanding of the ways in which technology can be a tool to empower students by increasing the opportunity for social interaction, identity development, and collaboration (Cummins et al., 2007; Murray, 2005). When selecting educational software for culturally and linguistically diverse students, a reading intervention program has to be culturally sensitive in order to reflect the diversity of the student population (Guzman, 2002). As such, when adopting a reading program or integrating technology, teacher educators need to critically question the degree to which the content materials reflect ELLs' cultural identities.

Gee (2007) reminds teachers that good games "are good for your soul when you play them with thought, reflection, and engagement with the world around you" (p. 8). In considering the ways of using technology, both Xiao Nan and Marco suggested that the use of simulations was a way to keep them motivated and engaged. In Xiao Nan's case, the adventure gaming environment contained a list of small achievable goals reflecting his intrinsic motivation. Marco's imaginary "Conversation Zone" suggests that role-play games engage him in learning. These ideas convey the same idea that a good game makes them "feel like they are active agents (producers) not just passive recipients (consumers)" in the imagery world (Gee, 2007, p. 30).

Future Investigations

The findings of the study inform Teachers of English to Speakers of Other Languages (TESOL) professionals about the way in which culturally and linguistically diverse students perceive the use of the READ 180 reading program. On the macro level, the insights of the student experiences would contribute to the TESOL field in terms of computer technology helps meet ELLs' cultural and linguistic needs and interests. It also helps TESOL professionals understand issues related to the second language reading process. On the micro level, the use of the READ 180 reading software program reveals the tensions between research and the production and marketing of commercial software. As Cummins et al. (2007) pointed out, current research related to commercial reading programs such as READ 180 are biased as they are often funded by publishing companies. This study attempted to provide evidence to better understand the tensions between the development of reading software programs and their use in the classroom. However, this study contains several limitations and will need future research in order to continue to develop this topic in the following directions.

Future research could (1) use a critical theory research paradigm to investigate the cultural and linguistic bias of content materials of READ 180; (2) examine administrators and ESOL teachers' experiences of using READ 180; (3) conduct an experimental research to explore the effectiveness of READ 180 on both struggling readers and English language learners; and (4) investigate the perspectives of teacher and administrators using READ 180 programs.

First, using "America" and "the United States" interchangeably created cultural conflict for ELLs who come from South or Central America. Additionally, there was a generic representation of Hispanic culture in the READ 180 software. These issues emerging from the data collected in this study suggested that there may be a cultural bias or cultural overgeneralization that exists in the content materials of READ 180. Future research could focus

on the socio-cultural and sociopolitical aspects of READ 180 on culturally and linguistically diverse students. As an alternative, a theoretical framework of critical theory is recommended to allow researchers to examine the content materials of commercial software through the lens of culturally relevant pedagogy in order to view the ways in which the ideological elements contained in the content materials of READ 180 shapes students' perceptions of social realities.

Second, the findings from this study also noted that READ 180 purports the use of technology as a means to measure students' oral reading fluency. The use of recording was a way to measure students' reading rate accurately with an immediate test result for learners. However, this oral reading assessment did not reflect the students' reading performance levels because it could only measure the rate of their fluency but not its accuracy. Altwerger, Jordan and Shelton (2007) remind teachers that reading fluency assessment should reflect students' rate, accuracy, and comprehension. Furthermore, future research could investigate the ways in which ELLs' accents affect the oral reading fluency assessment. The results of the students' performance on this assessment is often misleading if the teacher considers integrating it into his/her grading system. Future researchers should be encouraged to explore the appropriateness of the reading assessment component of the READ 180 reading program.

Third, as the READ 180 reading program is sold for both struggling readers and ELLs, the findings also showed some of the materials of READ 180 software program failed to respond to the unique needs of ELLs. Herein, I have speculated that the READ 180 program favored struggling readers over the needs of ELLs in terms of the materials relate to the decoding skill. As the literature of READ 180 conflated struggling readers with ELLs, there is a need for studies to investigate the delineation of these two groups. While a majority of studies explored ELLs by comparing them to their mainstream English-speaking peers, few studies have focused on the

ways in which ELLs and struggling readers are different in terms of their learning needs and backgrounds. As mentioned in Chapter 1, both groups may encounter decoding difficulties: however, while a majority of struggling readers often have weak intrinsic motivation and need appealing materials to sustain their engagement in reading, ELLs usually possess both intrinsic and extrinsic motivation (Short & Fitzsimmons, 2007). Meanwhile, oral language development is not necessarily a concern for struggling readers; it is a key issue, however, for ELLs. When the READ 180 reading program is sold for both populations, the publisher assumes that the software program can meet their needs at the same time. There seems to be a need for the public, including program designers, educators and researchers to clearly understand the different learning needs between struggling readers and ELLs. Future researchers should be encouraged to use an experimental study design in order to investigate the effectiveness of READ 180 on both student populations.

Finally, this study was limited to the understanding of the ways in which culturally and linguistically diverse populations used the READ 180 reading program; it did not question why the school purchased and used it. As the findings of this study indicated that READ 180 did not respond to ELLs' individual needs, it becomes necessary for future research to investigate the perspectives of administrators related to their decisions to integrate READ 180 reading program into their school districts' curricula. To what extent do they perceive that it helps with their students' learning and achievement?

Conclusions

The starting point of this dissertation was my desire to explore the ways in which the READ 180 reading program reflected adolescent English Language Learners' cultural and linguistic backgrounds. Students in their interviews indicated that the diverse backgrounds and language levels of ELLs made it difficult for READ 180 to respond to their unique cultural and

linguistic needs. Students in this study demonstrated both an intrinsic and extrinsic motivation to learn English. Such findings are essential as they distinguish ELLs from struggling native-English speaking readers (Short & Fitzsimmons, 2007). Although the READ 180 reading program provided scaffolds and repeated reading practice, the learning needs for both groups cannot be assumed to be the same. As such, there is a need for READ 180 program to make distinctions between these two very distinct groups.

Teachers should integrate culturally relevant pedagogy in order to meet the cultural needs of ELLs. In selecting educational software, teachers have to consider the pedagogical orientations embedded in the software program and must modify instruction to differentiate learning for ELLs' different language ability levels. More importantly, teachers need to avoid viewing language learning as merely learning discreet language skills. Rather, they need to take multiliteracies (New London Group,1996) into account by providing a learning environment that allows ELLs to learn English, their native language, and technology at the same time.

APPENDIX A
INSTITUTIONAL REVIEW BOARD OF PROTOCOL

UFIRB 02 – Social & Behavioral Research

Protocol Submission

Title of Protocol: English language learners' (ELLs) perceptions of using READ 180

Principal Investigator: Chiu-hui (Vivian) Wu	**UFID #:** 1184-1963
Degree / Title: Doctoral student **Department:** ESOL/Bilingual Education School of Teaching and Learning	**Mailing Address:** 306 Diamond Village Apt 2 Gainesville, FL 32603 **Email Address & Telephone Number:** chw210@ufl.edu (352) 870-4287
Co-Investigator(s):	**UFID#:**
Supervisor: Dr. Maria Coady, Ph. D.	**UFID#:**
Degree / Title: Assistant Professor **Department:** School of Teaching and Learning	**Mailing Address:** 2415 Norman Hall PO Box 117048 **Email Address & Telephone Number:** **mcoady@coe.ufl.edu** (352) 392-9191 ext. 232

Date of Proposed Research:
November 1, 2008 to October 31, 2009

Source of Funding *(A copy of the grant proposal must be submitted with this protocol if funding is involved):*
None

Scientific Purpose of the Study:
This study aims to understand the experiences and perceptions of ELL (English Language Learner) students who are using READ 180, a software program for struggling readers.

Describe the Research Methodology in Non-Technical Language: ***(****Explain what will be done with or to the research participant.****)***

This study will use qualitative research techniques, including semi-structured interviews, classroom observations, and document analysis. A total of 4 middle school, English as a second language students will be asked to participate in six 30-minute interviews. The interviews will be conducted individually either during or after school at the student's convenience. All interviews will be audio-taped and transcribed. Please see the attached interview protocols. The goal of the first interview is to obtain information regarding students' experiences with software, computers, and technology. The second interview will be based on the first observation that will take place. The third and the remainder of the follow up interviews will follow a similar format to the second, i.e., questions will be based on the previous observation of the student's interaction with the READ180 software.

As for the observation, a maximum of 30 hours will be spent observing how participants use READ 180. Please see attached for the observation protocol.

Documents, including READ 180 program related electronic and print materials, and

students' journals and logs, related to the use of READ 180, will be collected and analyzed. Data will be used only for this study and will not be used for any other reason. All audio recordings will be destroyed upon completion of the study and no identifying information will be retained upon completion of the study

Describe Potential Benefits and Anticipated Risks: (*If risk of physical, psychological or economic harm may be involved, describe the steps taken to protect participant.)*

Benefits: The results of the study will inform ESOL (English to Speakers of Other Languages) teacher education regarding the use of READ 180 to promote literacy for ELLs.
Risks: There are no known risks associated with this study.

Describe How Participant(s) Will Be Recruited, the Number and AGE of the Participants, and Proposed Compensation:

The age range of students is 12-15 years old. No compensation will be provided for participation.

Describe the Informed Consent Process. Include a Copy of the Informed Consent Document:

First, the principal investigator will contact the county school district and submit required documents (copies of IRB-approved protocols and consent forms). The district will then contact the school principal for permission to conduct research and data collection in the classroom. Once permission has been granted, the PI will contact the teacher and will distribute the consent and assent forms at school. Before conducting interviews or observations, and collecting any documents, participants and their parents will sign informed consents and students will sign informed assents. Once signed, a copy of each consent and assent form will be provided to the families. Participation in this study is completely voluntary. There is no penalty for not participating in this study.

English, Spanish, and Chinese versions of the informed consent will be provided for the parents of the participants, depending on which language in which they are able to read and write.

Principal Investigator(s) Signature:	**Supervisor Signature:**
Department Chair/Center Director Signature:	**Date:**

APPENDIX B
TEACHER INFORMED CONSENT

Dear Educator:

I am a doctoral student in the College of Education at the University of Florida conducting research for my dissertation on English language learners' (ELLs) experiences of using READ 180. I am conducting this research under the supervision of Dr. Maria Coady. The purpose of this study is to understand English Language learners' experiences of using READ 180.

With your permission, I would like to interview and observe some of your students. These interviews will last about 30 minutes and will be scheduled at your convenience as well as the convenience of your students. With your permission, I would like to audiotape these interviews. Only I will have access to the audiotapes, which I will transcribe personally, removing any identifiers during transcription and replacing all names with pseudonyms. Also, I would like to do observations in your classroom for four weeks; four times per week. During the observations, I would like to take field notes. All confidential material will be stored in a locked drawer in my office.

There are no anticipated risks, compensation, or other direct benefits to you as a participant in this study. You are free to withdraw consent, and you may discontinue your participation in the study at any time without consequence.

If you have any questions about this research protocol, please contact me, Chiu-Hui (Vivian) Wu at (352) 870-4287 or chw210@ufl.edu. You also may contact my faculty supervisor, Dr. Maria Coady, at (352) 392-9191 ext. 232 or mcoady@coe.ufl.edu. Questions or concerns about your rights as a participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL 32611, (352) 392-0433.

If you would like to participate in this study, please sign and return a copy of this letter to me. A second copy is provided for your records. By signing this letter, you are agreeing to be part of this study. By doing so, you are giving me permission to use the data I collect from your students. The findings from this data will be reported and published as my dissertation. Also, by signing, you are giving permission to use these data in future academic presentations and publications, with the understanding that your identity will be kept confidential.

Thank you,

Chiu-hui (Vivian) Wu

Date

_____

I have read the procedure described above for the study entitled, "English language learners' perceptions of using READ 180." I voluntarily agree to participate in the study and have received a copy of this description.

Your name Date

APPENDIX C
STUDENT ASSENT FORM

Dear Student,

I am a student in the College of Education at the University of Florida. I am doing a research project to understand how you use READ 180. I am looking for students to take part in the study.

If you agree, I would like to watch you while you are working with READ 180 for four weeks, four times per week. I will take notes about what I see and interview you about your experience with READ 180. Depending on my observations, I will do up to six interviews with you. During these interviews I will ask you questions about your experiences using READ 180. These interviews will be tape recorded and last no longer than 30 minutes. The interviews will not interrupt your daily class schedule; they will take place after your school day or at your convenience. I would also like to collect some of your school work, such as your journals or logs related to READ 180.

This study will help me understand how you work with READ 180. It is completely your choice whether or not you decide to participate in this project, and there will be no penalty if you choose not to participate. There is no money or other forms of compensation given for joining in this study. This project will not affect your grade in your class in any way. I will use a fake name so that your real name will not be shown in any of my project study. I would like to ask for your agreement. You also have the right to stop participating in the project at any time.

I am really looking forward to learning from you about how you work with READ 180. Thank you for your help.

Chiu-Hui (Vivian) Wu

APPENDIX D
PARENT CONSENT FORM-ENGLISH

Dear Parent,

I am a doctoral student in the College of Education at the University of Florida conducting my dissertation for the use of the READ 180 software with English language learners (ELLs). I am conducting this research under the supervision of Dr. Maria Coady. The purpose of this study is to understand ELLs' experiences of using READ 180. I am asking your son or daughter to participate in this study because I would like to know about students' experiences of working with the READ 180 software.

I would like to do observations for four weeks, four times per week. I will observe him/her during class when he/she is using the READ 180 software. I will take field notes during these observations and I will conduct a maximum of six interviews with your son/daughter that will serve as data for the study. The interviews will be tape-recorded and last no more than 30 minutes and will be scheduled with the teacher's permission and at the convenience of your son or daughter. I will not conduct any interviews until I have received permission from you in the form of a signed consent. The tape-recording will be kept in a locked drawer in my office and will be destroyed after transcription. I may also collect some sample reading and writing work from your son or daughter.

Your son or daughter's identity will be kept entirely confidential as required by law. There are no anticipated risks, compensation, or other direct benefits to your son or daughter as a participant in this study. Your child is free to withdraw from the study at any time without consequence. Also, your child's school grade will not be affected by this study regardless of their participation.

If you have any questions about this research protocol, please contact Chiu-Hui (Vivian) Wu at (352) 870-4287 or chw210@ufl.edu. You also may contact my faculty supervisor, Dr. Maria Coady, at (352) 392-9191 ext. 232 or mcoady@coe.ufl.edu. Questions or concerns about your child's rights as a participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL 32611, (352) 392-0433.

If you agree to have your son or daughter participate in this study, please sign and return a copy of this letter to me. A second copy is provided for your records. By signing this letter, you are giving me permission to collect interview and observation data with your son or daughter. The data from this study will be submitted as part of my doctoral dissertation. Additionally the data from this study may also be used in future presentations and publications.

Thank you,

Chiu-hui (Vivian) Wu

Date

_____

I have read the procedure described above for the study entitled, "English language learners' perceptions of using READ 180." I voluntarily agree to have my child to participate in the study and have received a copy of this description.

Parent's name Date

APPENDIX E
PARENT CONSENT FORM-SPANISH

Queridos Padres de Familia,

Soy una estudiante haciendo mi doctorado en el Instituto de Educación de la Universidad de la Florida. Estoy conduciendo una investigacion para un proyecto de curso cuyo objetivo es estudiar el uso de lectura (READ 180) para estudiantes de ESOL. Estoy conduciendo esta investigación bajo la supervisión de la Dra. Maria Coady. El propósito de este estudio es el de entender cuáles son las perspectivas de los maestros y de los estudiantes concerniente a un programa específico de computadora de lectura. Estoy preguntando si su hijo/hija puede participar en este estudio porque nos gustaría saber acerca de las experiencias de los estudiantes con el programa de computación de lectura.

Con su permiso, me gustaría observar a su hijo/hija por el término de cuatro semanas. Durante estas cuatro semanas, observare a su hijo/hija cuatro veces cada semana. Lo observare durante el transcurso de tiempo que la clase use el programa de lectura. Durante estas observaciones tomaremos notas de campo y conduciremos un máximo de seis entrevista con su hijo/hija. La información recolectada servirá como datos para el estudio. La entrevista será grabada en un cassette de audio y no durara más de 30 minutos. Estas entrevistas serán planeadas con el permiso de el/la maestro(a) tan pronto hayamos recibido una copia de este consentimiento firmado por usted. Asimismo, estare recolectando algunas muestras del trabajo de lectura y escritura de su estudiante. La identidad de su hijo/hija será guardada de manera confidencial como es requerido por la ley, remplazando todos los nombres reales por nombres ficticios. Dos meses después de finalizar este estudio, todos los cassettes con las entrevistas serán destruidos. Además, la decisión de participar o no en este estudio no afectara de ninguna manera las calificaciones de su hijo/hija.

No hay ningún riesgo anticipado, ningunas compensaciones, u otros beneficios directos hacia su hijo/hija como participante de este estudio. Su hijo/hija es libre de retirar su consentimiento y puede descontinuar su participación en cualquier momento sin ninguna consecuencia.

Si tiene algunas preguntas acerca del protocolo de esta investigación, por favor contacte a Chiu-Hui (Vivian) Wu al (352) 870-4287 o a su correo electrónico chw210@ufl.edu. Usted también puede contactar a mi supervisora de facultad, Dr. Maria Coady, al (352) 392-9191 ext. 232 o a su correo electrónico mcoady@coe.ufl.edu. Cualquier pregunta o preocupación acerca de los derechos de su estudiante como participante pueden ser dirigidas a la oficina de UFIRB, Universidad de Florida, Box 112250, Gainesville, FL 32611, (352) 392-0433.

Por favor firme y devuélvame esta copia de esta carta. Una copia adicional será proveída para sus registros. Al firmar esta carta nos esta dando permiso para recoger datos de entrevistas y observaciones de su hijo/hija. Al firmar, también me da el permiso de usar los datos de su hijo/hija en presentaciones y publicaciones académicas.

Se lo agradegco,

Chiu-Hui (Vivian) Wu

Date

_____

He leído el procedimiento descrito arriba para el estudio titulado, “La percepcion de los masestros e estudiantes de segundo idioma sobre un programa de computación de lectura (READ 180).” Acepto voluntariamente que mi hijo/hija participe en este estudio y he recibido una copia de esta descripción.

Parent’s name (Nombre del Padre/Madre) Date (Fecha)

Child’s name (Nombre del Estudiante) Date

APPENDIX F
PARENT CONSENT FORM-CHINESE

親愛的家長您好，

我目前是佛羅里達大學教育學院博士生。因爲我論文的需要，我將對英文學習者使用 READ 180 閱讀軟體進行研究。此研究由我的佛羅里達大學教育學院的 Dr. Coady 教授指導。 我的研究目的主要是了解學生與老師對 READ 180 閱讀軟體的觀感。我誠摯的邀請您的孩子參與我的研究。

在您的允許下，我將在您的孩子所在的班級裡，在學生使用 READ 180 的課堂進行爲期四周的課程觀察。研究資料將取自於課堂觀察記錄，以及課後對您的孩子所做的訪談。最多六次 每次三十分鐘的訪談會在得到您與任課老師同意後進行。期間，爲了研究需要，我會收集孩子的一些閱讀與寫作作業。爲保障您的孩子的隱私權，我絕不會透露您孩子的真實姓名。您的孩子的課業成績也不會因爲是否同意參與本研究而受到任何影響。

在參與我的研究過程中，您的孩子不會有任何風險，也不會有任何形式的收益。您的孩子可以在任何時候提出終止參與本研究，而不會有任何懲罰或利益損失。

如果您對本研究有任何相關的疑問，請與我本人吳秋慧聯繫，電話是 (352) 870-4287 或是我的電子郵件信箱 chw210@ufl.edu。您也可以聯繫我的指導教授 Dr. Maria Coady 電話 (352) 392-9191 轉 232 或電子郵件信箱 mcoady@coe.ufl.edu 。如果您的孩子在參與研究過程中有相關的疑問，您也可以直接與佛羅里達大學研究監督委員會聯繫，其聯繫方式如下：

住址
The UFIRB office
Box 112250, Gainesville, FL 32611
電話 (352) 392-0433.

如果您同意讓您的孩子參與我的研究，請在本同意書上簽名並交還給我。另一份則由您簽字後，由您自行保留。您的簽名即表示我已經獲得您的允許，對您的孩子在課堂中使用 READ 180 閱讀軟體進行觀察及課後採訪。而所收集的資料，將成爲我論文的一部分。您的簽名也表示我可以用於學術研討會或者發表。

非常感謝感謝您對我研究的大力支持！

吳秋慧

我已獲悉所有以上關於本研究“英語課堂 READ 180 的使用”的事宜。我同意讓我的孩子參與此研究並且已獲得一份同意書作爲保留。

家長
學生

APPENDIX G
STUDENT INTERVIEW PROTOCOL

First Interview

The first interview is to obtain information regarding students' experiences with software, computers, and technology.

Introduction: Thank you for participating in this study. I would like to ask you a few more questions about your experiences with software, computers and technology. Do you have any concerns before we begin?

1. Tell me about yourself.

2. Have you been using reading software at home?

3. What kind of things would you do on the computers at home?

4. What kind of things do you do on the computers at school?

5. Tell me what you think of Reading Zone of READ 180.
6. Tell me what you think of Word Zone of READ 180.
7. Tell me what you think of Spelling Zone of READ 180.
8. Tell me what you think of Success Zone of READ 180.
9. What kind of books do you read in independent reading station?
10. Which parts of the READ 180 rotation (teacher/computer/independent reading station) do you like best? Why?
11. Which parts of the READ 180 rotation (teacher/computer/independent reading station) do you not like at all? Why?
12. Which parts of the READ 180 rotation (teacher/computer/independent reading station) are most helpful for you? Why?
13. Which parts of the READ 180 rotation (teacher/computer/independent reading station) are least helpful for you? Why?
14. If you could change READ 180, what would you change?
15. Is there anything you would like to add?

Sample second interview protocol (Marco)

1. Tell me what you have put in your binder related to READ 180 (reading logs).
2. I saw you sat in front of the computer and reading the book called The Star Fisher. How was the book? Was it a READ 180 audio book?
3. Why did you prefer to read an audio book to a paperback book?
4. I also saw you were chatting with the boy who sat on your right, did this mean you were bored with the book (what were you talking about)?
5. I saw you worked with Eva on the worksheet on Wednesday. Do you like to learn English with others better than being alone?
6. How do you see READ 180 help you speak English?
7. How do you see READ 180 help you write in English?

Sample third interview protocol (Isabel)

1. Tell me about what you put in your binder related to READ 180.
2. Tell me what you put in your reading log.
3. How did you like the book you just read *Love letters*?
4. Eva told me that she had read all the READ 180 books, have you got a chance to read all the books?
5. Yesterday, I saw you were doing the skill of READ 180. How do you feel about the worksheet that helps you understand English grammar?
6. What did you do in the small group discussion? How did you feel about this activity?
7. (I know they were working on finding the main idea and the supporting ideas but would like her to tell me.)
8. How do you see READ 180 help you speak in English?
9. How do you see READ 180 help you write in English?

Sample fourth interview protocol (Eva)

1. I saw you picked up a book from the READ 180 shelf, what did you read on Thursday?

2. I thought you were more interested in *Inkspell* because you were reading it the other day, why didn't you continue to read *Inkspell* on Thursday?

3. How did you feel about Marco who was trying to share the video he saw from a READ 180 lesson?

4. Tell me about how you think of the article *The act of sharing*.

5. Tell me about the immigrant lesson that you learned with Ms. Anderson on Thursday.

6. How did you think of the concept of immigrant?

7. How did you think of the content that talks about U. S. citizen?

Sample fifth interview protocol (Isabel)

1. I saw you checked out books from the library, how do you compare books from the library to the READ 180 books?

2. I saw you were reading the book *The Good Fight* the other day, what do you think of it? What's the book about? How do you like this kind of books?

3. In your last interview, you mentioned that *The band* is the least favorite book. Why don't you like this kind of books?

4. I saw you were at *In Search of Rain*. How do you think of the content?

5. You mentioned that you don't record yourself that much in your last interview. What do you think the purpose of recording your voice? Do you know why you are asked to record your voice?

6. How do you think the READ 180 program prepares you for the FCAT?

7. Lat time you told me that Reading Zone is not your favorite ("It's not my favorite but I like it.") What do you mean by that?

8. How do you see READ 180 help you write?

9. Have you experienced any technical problems when you use READ 180? How does it influence your learning?

10. Are you concerned about your score in READ 180?

11. Have you learned some strategies from READ 180 that you know how to read better in English?

12. You mentioned that sometimes the program go slow, can you tell me more about how it happens? How does the READ 180 software influence your learning?

13. How do you see READ 180 help you learn science and social studies?

14. I've never seen you using audio books of READ 180, have you ever read audio books? Why or why not?

15. In our last interview, I asked you questions "If you could make one change of READ 180, what you like to have?" You've said that you would like to make the video longer. Is there anything you would like to remove?

Sample sixth interview protocol (Xiao Nan)

1. What are the things you do in the skill section?

2. When you record your speech, have you skipped any sentences or words that you don't know?

3. Most of the time, the program tell you what is right and what is wrong. Do you have the experience that you may mispronounce a word, but the program does not tell you that is wrong?

4. Last time you told me that you would like READ 180 to add more activities. Can you tell me a bit more it?

APPENDIX H
STUDENT OBSERVATION PROTOCOL

The total of observational hours: 10 hours/per student (approximately 5 or 6 visits)

Observation date: _____
Class period of using READ 180: _____

The predetermined observation checklist for this study is:

- A detailed description of the natural context in which READ 180 is being used;
- A detailed description of how each ELL interacts with READ 180
- A detailed description of how the ESOL teacher uses READ 180 (e.g., what do participants do in each rotation?); and
- A focus on how teachers implement READ 180.

Things to observe:

1. Description of the teacher being observed (race, gender, appearance, etc.)

2. Description of the setting in which the student is being observed (e.g., interacting with the READ 180 software, independent reading, and small group discussion)
   Topic CD s/he used:
   Books she read:
3. Time that the student uses READ 180:
   a. The whole group discussion (20 minutes)
   b. Small group discussion (20 minutes)
   c. READ 180 software (20 minutes)
   d. Independent reading (20 minutes)
   e. Whole group (Wrap up) (10 minutes)

4. Interaction and actions of the student in the classroom:

- The use of L1
- Acts of engagement (e.g., on task, attention in text, writings, enjoyment, etc.)
- Acts of disengagement (e.g. distraction, working on something else, off task, etc)
- Others

APPENDIX I
OBSERVATION FIELD NOTES

Date: 12/1/08

Isabel

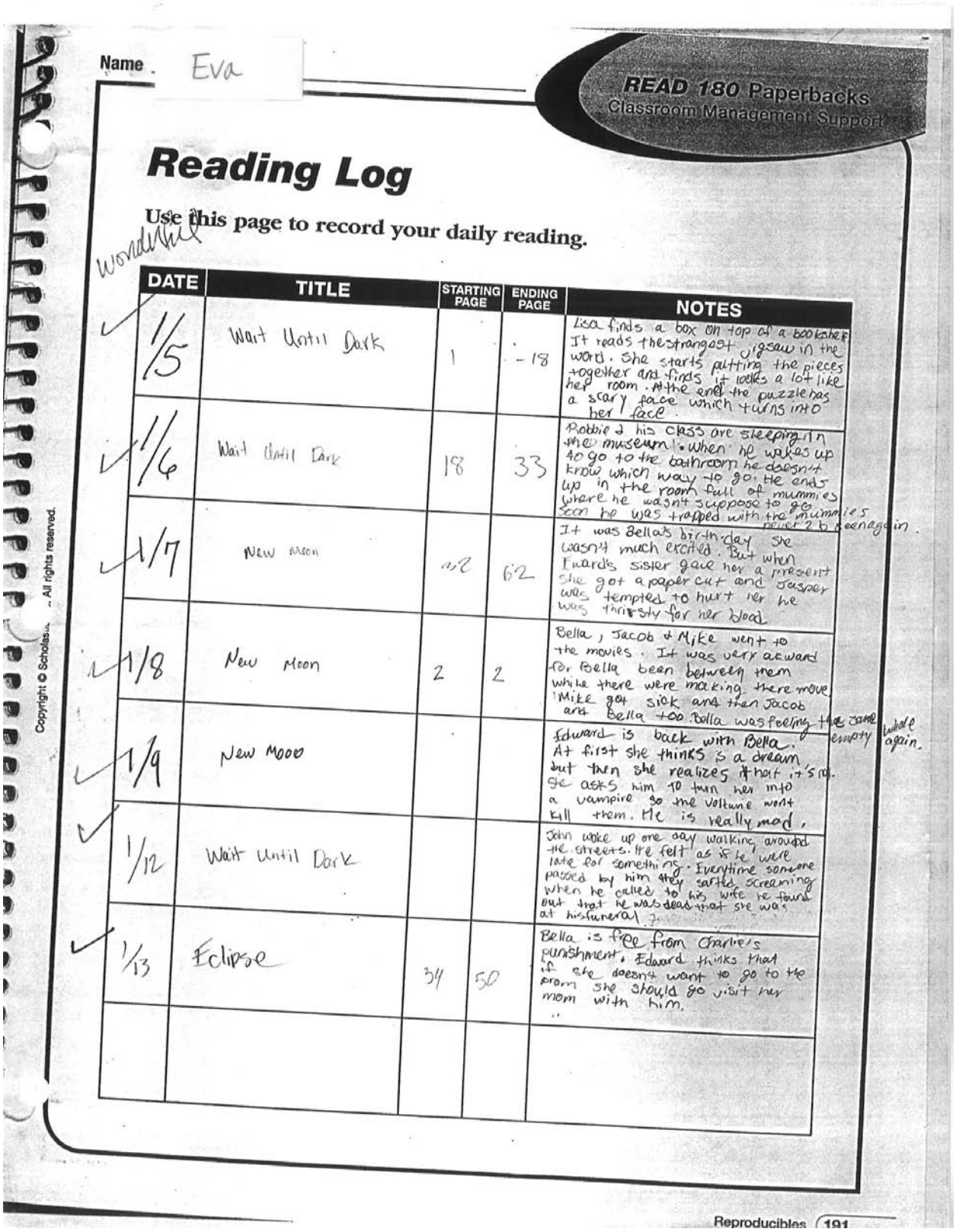
She first worked on Reading, Word, and Spelling Zone. Words she practiced in Word Zone included: embark, provide, abroad, above, able, ocean, salad, taken, members...
Spelling Zone: wolves, genuinely, crowding, board, themselves, relief, reception, exceptional, temperature, winds.
Success Zone: she could not identify the word "genuinely." She only did it for 10 minutes and then she left for getting the ice and never get back to the computer station.
Acts of disengagement:
I noticed that she got distracted by her peers sitting next to her. Another girl went to talk to her and then she talked to another boy. So I asked her how she felt when she was interrupted.
Also, she checked out what the teacher was doing while she was doing READ 180 and then left the room.
Later in my interview with her, I realized she broke her ankle and she was not comfortable doing it. She discontinued the program in order to get some ice to cover on her foot.
Acts of engagement:
Isabel was doing the success zone. In the success zone, she was expected to choose the correct words from the passage. She got every words correct. She finished up the session. Then she moved to the Reading Zone, then the Word Zone, and then the Spelling Zone.
I noticed that she have completed typing 40 words correctly in the Spelling Zone. It's not difficult for her.
Questions to ask:

1. Tell me about the book you read yesterday.
2. How did you like the book?
3. Why did you talk to other peers when you were at the Computer Station?
4. Did you feel when you were disrupted by Marco?
5. You were doing recording with the computer yesterday, how did you feel about doing recording?
6. How did you feel about your spelling task yesterday?
7. Tell me what you learned about the topic "The law: No passing" yesterday.
8. How do you feel about the topic?
9. How do you feel about the video session "A driver's license"?
10. How do you think you understand the passage "A driver's license"?

Marco

He was doing the session "The Performing Art" in Art Attack and he seemed to be engaged in READ 180 today. For example, I noticed that he would read aloud when he did the content passage. He would talk to the computer "Oh! I should do it again!" He had a self-talk.
Then I heard him say "I'm tired" as he finished the program. So I asked him whether he got tired because of the program. Occasionally, I noticed that he would check out the screen that Maya was at. I was not sure why he did that. Then I asked him the reason in the interview, he told me that he was trying to check out Maya's score. He was competing with her.
He mentioned to me again that he failed in science. He was very concerned about it.
Acts of disengagement: Not recording.

APPENDIX J
STUDENT READING LOGS



Name Eva

READ 180 Paperbacks
Classroom Management Support

Reading Log

Use this page to record your daily reading.

DATE	TITLE	STARTING PAGE	ENDING PAGE	NOTES
1/5	Wait Until Dark	1	18	Lisa finds a box on top of a bookshelf. It reads the strangest jigsaw in the world. She starts putting the pieces together and finds it looks a lot like her room. At the end the puzzle has a scary face which turns into her face.
1/6	Wait Until Dark	18	33	Bobbie & his class are sleeping in the museum! When he wakes up to go to the bathroom he doesn't know which way to go. He ends up in the room full of mummies where he wasn't suppose to go. Soon he was trapped with the mummies never to be seen again.
1/7	New Moon	42	62	It was Bella's birthday. She wasn't much excited. But when Ewards sister gave her a present she got a paper cut and Jasper was tempted to hurt her he was thirsty for her blood.
1/8	New Moon	2	2	Bella, Jacob & Mike went to the movies. It was very akward for Bella been between them while there were making there move. Mike got sick and then Jacob and Bella too. Bella was feeling the same empty inhalf again.
1/9	New Moon			Edward is back with Bella. At first she thinks is a dream but then she realizes that it's not. She asks him to turn her into a vampire so the voltune wont kill them. He is really mad.
1/12	Wait Until Dark			John woke up one day walking around the streets. He felt as if he were late for something. Everytime someone passed by him they started screaming when he called to his wife he found out that he was dead at his funeral.
1/13	Eclipse	34	50	Bella is free from Charlie's punishment. Edward thinks that if she doesn't want to go to the prom she should go visit her mom with him.

Nam Isabel

READ 180 Paperbacks
Classroom Management Support

Reading Log

Use this page to record your daily reading.

DATE	TITLE	STARTING PAGE	ENDING PAGE	NOTES
1/5	Good fight	3	12	There are people running away from Poland because the german are talking over Poland and are killing Jews
1/6	Good fight	13	22	Rachel carson died of cancer April 14 1964.
1/7	Good fight	23	30	Some kids from a colored school thought that it was not fair that the white got a better Education than the colored
1/9	Ruby holler	199	218	Its about two kids that dont have parents and none of the Family like them
1/8	Sisterhood of the traveling Pants	1	8	its the third summer of the sisterhood of the Pants.
1/13	Dicey's song	1	5	Dicey's song is about this girl that say that all the new changes came at them all at once!
1/15	Dicey's song	6	22	Dicey wants a job and she its telling the woman that she is working to get Paid 1 dollar an hour!

Name Marco

READ 180 Paperbacks
Classroom Management Support

Reading Log

Use this page to record your daily reading.

Awesome

DATE	TITLE	STARTING PAGE	ENDING PAGE	NOTES
1/5	Oh, Yuck	23	33	Mommys = no Organs!
1/6	Oh, Yuck	33	40	Worms are awesome
1/7	Moby Dick	All	Lock	It was really bloody and awfull
1/8	From Amigos to Friend	11	25	Awesome
1/9	11	25	33	creepy
1/12	odd- jobs	1	9	Alligators are creepy
1/13				~~happy bday~~
1/14				

Name Xiao Nan

READ 180 Paperbacks
Classroom Management Support

Reading Log

Use this page to record your daily reading.

DATE	TITLE	STARTING PAGE	ENDING PAGE	NOTES
1/5	DANIEL'S STORY	8	16	DANIEL want to Jewish school. And he knew every German don't like Jew.
1/6	DANIEL'S STORY	17	28	DANIEL need to move other country. Those stories were talking about to move.
1/7	DANIEL'S STORY	29	45	Daniel was mooing to Lodz, Poland. He started a new terrible life.
1/8	RAVE MASTER	32	117	Rave was going to find a blacksmith.
1/9	DANIEL'S STORY	45	54	Daniel's Aunt and her child were all died. except Friedrich. And he's so sad.
11/14	RAVE MASTER	1	32	It's cool and fun.
11/15	RAVE MASTER	1	38	Rave finally can use rave. He beat the bad guy.

APPENDIX K
THE TOPIC LIST OF READ 180

Content	Topic title	Units
People & Culture	Art Attack	Crop art Halls of fame Young at art Stomp
	Help Wanted	Jump start In the funnies Building dreams Blast off!
	Beating the odds	Feel the beat Second chance Little rock nine Write direction
Science & Math	Disaster!	Flood! Earthquake! Avalanche! Volcano!
	Show me the money!	Making money Bogus Bill Fighting forgery Mangled money
	Extreme sports	Extreme snowboarding Extreme biking Extreme kayaking Extreme surfing
History & Geography	Survive	Braving Alaska Out of the dust In search of rain Take a dive
	You and the law	Ban the boards What curfew? No passing Taking mom to the mall
	The whole world watched	A dark day in Dallas One giant leap Freedom in South Africa The people's princess

APPENDIX L
TRANSCRIPT CONVENTION

(...)	Empty parentheses indicate talk too obscure to transcribe. Dots inside such parentheses indicate the transcriber's best estimate of missing words.
[ ]	Words in brackets indicate transcriber's comments, not transcriptions, to the speaker's incomplete sentence.
(3)	Numbers in parentheses indicate periods of silence in seconds.
(Word)	Italicized words in parenthesis indicate the participants' language in order to contextualize the participants' previous comments.
((Smile))	The double parenthesis indicates the event behavior
....	A series of dots indicate a lengthening of the sound just preceding them, proportional to the number of colons.
_	Underlining indicates stress or emphasis (for example, I like to read).
=	An equal sign (ordinarily at the end of one line and the start of an ensuing one) indicate a 'latched' relationship--no silence at all between them.

APPENDIX M
CODING TRAIL

Open coding	**Focused coding**	**Selective coding**
Has to work hard	A difficult life	Understanding Immigrant Experiences
Immigrant life is tough		
Hard to get into a new country		
Being hard for the first year in the U.S.		
Speaks no English		
Start over is hard		
Agree with the content that being an immigrant is hard.	Interested in learning about immigrants	
Good to learn about how immigrants go through		
don't care what it says		
Not considered Puerto Rican an American immigrant	Not an American immigrant	Identity Conflict
Not seeing himself as an immigrant		
Not intend to settle down		
Already born here in America	United States is not "America"	
Using South America & North America separately		
Should say 'United States', not 'America'.		
Do as Americans as in America		
Other people don't like		
got really mad		
Does not like "Welcome to America"		
Learning Puerto Rican culture from her mom	Little from his/her country/culture	The lack of culturally relevant materials
Not so much about Puerto Rico		
No book related to Chile		
nothing from China		
nothing from Puerto Rico		
Not talk about my country		
Nothing from Chile		
Showing the growing number of immigrants	A generic representation of culture	
talks in general		
Use one culture for another		
People fell down and screamed while snowboarded		

Open coding	Focused coding	Selective coding
Feeling snowboarding is dangerous	Extreme sports	Not connecting to prior knowledge
Kayaking shows how scary a rough river is		
Kayaking is dangerous		
no organs	Dramatic topics	
Wrote "Really gross!" in a reading log		
A topic about people stay in submarine for 48 days		
"Oh! Yuck!"		
"Really scary" in Trapped		
Video helps with main idea	Visual aids	Scaffolding strategies
Video helps understand the topic		
Comic book has color		
Thinking the meaning of new words through the audio CDs	Auditory aids	
CD teaches explanations		
Audio CDs explain things he doesn't know		
Audio narrator helps understanding		
Voice [that speaks the main idea] helps understand		
Audio CDs teach him new words		
know what you read well	Questioning	
Questions helps attention		
"think hard"		
helps understand the passage better		
Reading log helps	Identifying the main idea	
Finding main idea and details		
Learn how to find main idea and details		
rBook helps		
Help how to say the word	Decoding	
how a word is pronounced		
Recording helps pronunciation		
Word Zone prepares you for the spelling	Spelling	
Learn how to spell a word in Spelling Zone		

Open coding	Focused coding	Selective coding
learn how to spell		Understanding English Language System
Help spell out difficult words		
Spell long words		
prefix and suffix	Word pattern identification	
Finding patterns in words		
Helps organize words		
antonyms and synonyms		
click on a word for its definition	Word meaning	
Gives definition		
Learning a word within a sentence (context)		
Having some clue		
explain words so good		
Reading Zone helps understand the meaning of words		
Checks the meaning of long words		
Recording	Repetition for fluency	Repeated Reading
repeating a word with the program		
Read it next time		
Improves reading speed		
Silent reading helps fluency		
Re-read the passage to find the answer	Repetition for understanding	
Reread the passage to do the questions		
Re-read the passage help "get the basics"		
Understand more if she reads twice		
not familiar enough when read it once		
Tricky questions	Text-level difficulty	
questions are confusing		
Got confused		
Not sure which word is correct		
Questions on the Reading Zone are hard		
Avoid reading something he can't understand		
Not finishing reading The Terror		
Word explanation not clear		

Open coding	Focused coding	Selective coding
Hard to understand a word meaning	Word-level difficulty	Experiencing Reading Comprehension Difficulties
Explanation in Reading Zone not clear		
Using electronic dictionary to look up words		
Using dictionary		
Asking teacher		
More specific and concrete examples	Needs concrete examples	
Prefer a concrete specific explanation		
Prefer simple sentences to understand		
Needs examples for understanding		
Prefer an example to explain the word		
Needs examples for understanding		
Video does not help with main idea	Needs visual aids	
Video is not informative		
Wanting video to be longer to help understand		
To identify the main idea		
Prefer pictures for understanding		
recording function prevents her from reading a lot	Oral reading (read aloud)	Need for Conversational Learning
Not like recording		
Feeling bored when being asked to read aloud		
Reading aloud as not helpful as silent reading		
Feeling weird to record		
Wants to know how to speak English	Conversational English	
Adding a new zone called "Conversation"		
Need to speak and write		
Putting messed words in order		
Prefers conversational interaction with the computer		

Open coding	Focused coding	Selective coding
Computer says after him		
Like Spelling Zone	Engaged in spelling	Motivation
Like doing spelling		
Like computer		
Spelling Zone helps spelling in FCAT		
Topics are interesting	A variety of topics	
"Show me the money" good		
Finding topics about teenagers interesting		
Unpredictable		
Getting higher score means learning more		
Wanting to show off his work	Feeling accomplished	
don't care		
feel good about himself		
Feeling accomplished		
Helps build on the confidence		
wanting to have a prize		
Could add several small reachable goals		
Have a sense of accomplishment	Multiple reachable goals	
Getting rewards		
Feeling motivated to reach the end		
Correcting	Prompt feedback	Synchronizing with Learning Pace
Correcting misspelled		
Identifying misspelled		
Telling how one reads and understands		
Do it yourself	Choice	
Clicking for word definition		
Using the word function for vocabulary help		
Checks the meaning of long words		
Pushed to record	Limited choice	Not Synchronizing with Learning Pace
Pushed to read aloud		
Not freely choose a topic		
Must read		
Feeling have to choose one or another		
Must do the program		

Open coding	Focused coding	Selective coding
Feedback on recording as inaccurate	Inaccurate feedback	
Dislike the narration	Not following the audio narration	
Prefer to read books without audio		
Reading things not in audio books distracts him		
Listening to audio books and doing something else		
Break distracts him		
Not following the CD		
Focus on unknown words with narration		
CD "go slow" when it reads the story		

LIST OF REFERENCES

Abedi, J., Hofstetter, C. H., & Lord, C. (2004). Assessment accommodations for English language learners: Implications for policy-based empirical research. *Review of Educational Research, 74*(1), 1-28.

Adler, P. A., & Adler, P. (1994). Observational techniques. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 377-392). Thousand Oaks, CA: Sage.

Alliance for Excellent Education. (2007). *Urgent but overlooked: The literacy crisis among adolescent English Language Learners*. Washington, D. C.

Allington, R. L. (2002). *Big brother and the national reading curriculum: How ideology trumped evidence*. Portsmouth, NH: Heinemann.

Altwerger, B. (2005). *Reading for profit: How the bottom line leaves kids behind*. Portsmouth, NH: Heinemann.

Altwerger, B., Jordan, N. C., & Shelton, N. R. (2007). *Rereading fluency: Process, practice, and policy*. Portsmouth, NH: Heinemann.

Au, K. H. (1980). Participation structures in a reading lesson with Hawaiian children: Analysis of a culturally appropriate instructional event. *Anthropology and Education Quarterly, 11*(2), 91-115.

Au, K. H. (1998). Social constructivism and the school literacy learning of students of diverse backgrounds. *Journal of Literacy Research, 30*, 297-319.

Au, K. H. (2006). Diversity, technology, and the literacy achievement gap. In M. C. McKenna, L. D. Labbo, R. D. Kieffer & D. Reinking (Eds.), *International Handbook of literacy and technology* (Vol. 2). Mahwah, NJ: Lawrence Erlbaum Associates.

Audi, R. (Ed.). (1999). *The Cambridge dictionary of philosophy* (2nd ed.). Cambridge, UK: Cambridge University Press.

August, D., & Shanahan, T. (2008). *Developing reading and writing in second-language learners: lessons from the report of the National Literacy Panel on Language-Minority Children and Youth*. New York: Routledge.

August, D., & Shanahan, T. (Eds.). (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on language-minority children and youth*. Mahwah, NJ: IEA.

Barbato, P. F. (2006). *A preliminary evaluation of the Read 180 Program.* Unpublished doctoral dissertation, Fairleigh Dickinson University, New Jersey.

Bassett, R., Beagan, B. L., Ristovski-Slijepcevic, S., & Chapman, G. E. (2008). Tough teens: The methodological challenges of interviewing teenagers as research participants. *Journal of Adolescent Research, 23*(2), 119-131.

Batalova, J., Fix, M., & Murray, J. (2005). *English language learner adolescents: Demographics and literacy achievements*. Report to the Center for Applied Linguistics. Washington, DC: Migration Policy Institute.

Beaunae, C., & Wu, C.-H. (2009). *Identifying hidden spaces of resistance in the qualitative research interview.* Paper presented at the American Educational Research Association (AERA), San Diego, CA.

Bebon, C. D. (2007). *The impact of a reading program designed to increase comprehension and proficiency of middle school migrant students in a South Texas school district.* Unpublished doctoral dissertation, Texas A&M University – Kingsville, Texas.

Bender, W. N. (2002). *Differentiating instruction for students with learning disabilities: Best teaching practices for general and special educators*. Thousand Oaks, Calif.: Crowin Press; Council for Exceptional Children.

Berger, P., & Luckman, T. (1967). *The social construction of reality*. New York, NY: Anchor Books.

Bernhardt, E. (2005). Progress and procrastination in second language reading. *Annual Review of Applied Linguistics, 25*, 133-150.

Bernhardt, E. (2006). Real and imagined roles for technology in acquiring second-language literacy In M. C. McKenna, L. Labbo, D. Reinking & R. Kieffer (Eds.), *International handbook of literacy and technology*. Mahwah, NJ: Erlbaum.

Birch, B. (2007). *English L2 reading: Getting to the bottom* (2nd ed.). Mahwah, NJ: IEA.

Bogdan, R., & Biklen, S. (1998). *Qualitative research in education*. Boston: Allyn and Bacon.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education*. New York: Greenwood Press.

Bourdieu, P. (2000). Language and symbolic power. In A. Jaworski & N. Coupland (Eds.), *The discourse reader* (pp. 503-513). New York, NY: Routledge.

Bracey, G. W. (2005). No Child Left Behind: Where does the money go? [Electronic Version]. *Education Policy Studies Laboratory* from http://www.asu.edu/educ/epsl/EPRU/documents/EPSL-0506-114-EPRU.pdf

Brander, B. G. (2005). Considering culture in CALL research. In J. Egbert & G. M. Petrie (Eds.), *CALL research perspectives*. Mahwah, N.J.: L. Erlbaum Associates.

Bransford, J., Brown, A. L., & Cocking, R. (Eds.). (2000). *How people learn: Brain, mind, experience and school*. Washington, D. C.: National Academy Press.

Brown, S. H. (2006). *The effectiveness of READ 180 intervention for struggling readers in grades 6--8*. Unpublished doctoral dissertation, Union University, Tennessee.

Burton, J. K., Moore, D. M. M., & Magliaro, S. G. (2004). Behaviorism and instructional technology. In D. H. Jonassen (Ed.), *Handbook of research for educational communications and technology* (2nd ed.). Mahwah, N.J.: Lawrence Erlbaum.

Caggiano, J. A. (2007). *Addressing the learning needs of struggling adolescent readers: The impact of a reading intervention program on students in a middle school setting*. Unpublished doctoral dissertation, The College of William and Mary, Virginia.

Campbell, B. (2008). *Handbook of differentiated instruction using the multiple intelligences: Lesson plans and more*. Boston: Pearson Allyn & Bacon.

Campbell, Y. C. (2006). *Effects of an integrated learning system on the reading achievement of middle school students.* Unpublished doctoral dissertation, University of Miami, Florida.

Carrell, P.L. and Eisterhold, J.C. (1983) Schema theory and ESL reading pedagogy. in Carrell, P.L., Devine, J. and Eskey, D.E. (eds) (1988) *Interactive Approaches to Second Language Reading*. Cambridge: CUP.

Center for Research on Education, Diversity and Excellence (CREDE). (2002). Retrieved September 12, 2008, from http//:crede.berkeley.edu

Charmaz, K. (2003). Qualitative interviewing and grounded theory analysis In J. A. Holstein & J. F. Gubrium (Eds.), *Inside interviewing: New lenses, new concerns.* Thousand Oaks, CA: Sage

Charmaz, K. (2006). *Constructing grounded theory*. London: Sage.

Chen, C.-H. (2007). Cultural diversity in instructional design for technology-based education. *British Journal of Educational Technology, 38*(6), 1113-1116.

Chun, D. M., & Payne, S. J. (2004). What makes students click: Working memory and look-up behavior. *System, 32*(4), 481-503.

Coles, G. (2003). *Reading the naked truth: Literacy, legislation, and lies*. Portsmouth, NH: Heinemann.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice, 39*(3), 124-131.

Crossley, S. A., Louwerse, M. M., McCarthy, P. M., & McNamara, D. S. (2007). A Linguistic analysis of simplified and authentic texts. *The Modern Language Journal, 91*(1), 15-30.

Crotty, M. (1998). *The foundations of social research*. Thousand Oaks, CA: Sage.

Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework* (pp. 3-50). Los Angeles, CA: Evaluation, Dissemination, and Assessment Center.

Cummins, J. (1996). *Negotiating identities: Education for empowerment in a diverse society*. Ontario, CA: California Association for Bilingual Education.

Cummins, J. (2001). Empowering minority students: A framework for intervention. *Harvard Educational Review, 71*(4), 649-675.

Cummins, J. (2003). BICS and CALP: Origins and rationale for the distinction. In C. B. Paulston & G. R. Tucker (Eds.), *Sociolinguistics: The essential readings* (pp. 322-328). London: Blackwell.

Cummins, J. (in press). Language and literacy teaching for immigrant students: A pedagogical framework. *Scientia Paedagogica Experimentalis— International Journal of Experimental Research in Education, 43*(2).

Cummins, J., Brown, K., & Sayers, D. (2007). *Literacy, technology, and diversity: Teaching for success in changing times*. New York: Allyn & Bacon.

Darling-Hammond, L. (2007). Race, inequality and educational accountability: The irony of "No Child Left Behind". *Race, Ethnicity and Education, 10*(3), 245-260.

de Jong, E. J., & Harper, C. A. (2007). ESL is good teaching 'plus': Preparing standard curriculum teachers for all learners. In M. E. Brisk (Ed.), *Language, culture, and community in teacher education* (pp. 127-148). Mahwah, NJ: Lawrence Erlbaum.

Denman, J. S. (2004). *Integrating technology into the reading curriculum: Acquisition, implementation, and evaluation of a reading program with a technology component (READ 180(TM)) for struggling readers.* Unpublished doctoral dissertation, University of Delaware, Delaware.

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 1-17). Thousand Oaks, CA: Sage.

Denzin, N., & Lincoln, Y. (2005). Introduction: The discipline and practice of qualitative research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 1-32). Thousand Oaks, CA: Sage.

Derewianka, B. (1990). *Exploring how texts work*. Rozelle, NSW, Australia: Primary English Teaching Association.

Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge: Cambridge University Press.

Dörnyei, Z., & Ushioda, E. (2009). *Motivation, language identity and the L2 self*. Bristol, UK: Multilingual Matters.

Echevarria, J., Short, D., & Vogt, M. (2004). *Making content comprehensible for English learners: The SIOP model*. Boston: Pearson.

Eder, D., & Fingerson, L. (2003). Interviewing children and adolescents In J. A. Holstein & J. F. Gubrium (Eds.), *Inside interviewing: New lenses, new concerns*. Thousand Oaks, CA: Sage.

Emigh, R. J. (1997). The power of negative thinking: The use of negative case methodology in the development of sociological theory. *Theory and Society, 26*(5), 649-684.

Felty, R. L. (2008). *READ 180 implementation: Reading achievement and motivation to read within an alternative education middle school program.* Unpublished doctoral dissertation, Immaculata College, Pennsylvania.

Fitzgerald, J. (1995). English-as-a-second-language reading instruction in the United States: A research review. *Journal of Reading Behavior, 27*(2), 115-152.

Fitzgerald, J., & Graves, M. F. (2004). *Scaffolding reading experiences for English-language learners*. Norwood, MA: Christopher-Gordon.

Florida Department of Education. (2009). English language learners. Retrieved June 23, 2009, from http://www.fldoe.org/eias/eiaspubs/pdf/ellflus.pdf

Fosnot, C. T. (2005). *Constructivism: Theory, perspectives, and practice*. New York: Teachers College Press.

Freire, P. (1990). *Pedagogy of the oppressed*. New York: Continuum.

Freire, P., & Macedo, D. P. (1987). *Literacy: Reading the word and the world*. South Hadley, Mass.: Bergin & Garvey Publishers.

Gale, J. E., & Steffe, L. P. (1995). *Constructivism in education*. Hillsdale, N.J.: Lawrence Erlbaum.

Gambrell, L. (2006). Technology and the engaged literacy learner. In M. C. McKenna, L. D. Labbo, D. Reinking & R. Kieffer (Eds.), *International handbook of literacy and technology*. Mahwah, NJ: Erlbaum.

Garan, E. M. (2004). *In defense of our children: When politics, profit, and education collide*. Portsmouth, NH: Heinemann.

Garcia, G. E., & Godina, H. (2004). Addressing the literacy needs of adolescent English language learners In T. L. Jetton & J. A. Dole (Eds.), *Adolescent literacy research and practice*. New York: Guilford.

Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.

Gay, G. (2000). *Culturally responsive teaching: Theory, research, and practice*. New York: Teachers College Press.

Gee, J. P. (2007). *What video games have to teach us about learning and literacy*. New York: Palgrave Macmillan.

Gentry, L. (2006). *An evaluation of READ 180 in an urban secondary school.* Unpublished doctoral dissertation, The American University, District of Columbia.

Gergen, K. J. (1999). An invitation to social construction. London: Sage.

Gergen, K. J., & Gergen, M. M. (2008). Social constructionism and psychological inquiry. In J. A. Holstein & J. F. Gubrium (Eds.), *Handbook of constructionist research*. New York, NY: The Guilford Press

Gergen, M. M., & Gergen, K. J. (2003). Qualitative inquiry: Tensions and transformations. In N. K. Denzin & Y. S. Lincoln (Eds.), *The landscape of qualitative research: Theories and issues* (pp. 684). Thousand Oaks, Calif.: Sage.

Giangreco, M.F., Dennis, R., Cloninger, C., Edelman, S., & Schattman, R. (1993). "I've counted Jon": Transformational experiences of teachers educating students with disabilities. *Exceptional Children*, *59*(4), 359-372.

Gibbons, P. (2002). *Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom*. Portsmouth, NH: Heinemann.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Pub. Co.

Glesne, C. (1998). *Becoming qualitative researchers*. White Plains, NY: Longman.

Godwin-Jones, R. (2007). Emerging technologies e- E-texts, mobile browsing, and rich Internet applications. *Language Learning & Technology, 11*(3), 8-13.

Goodman, K. S. (1968). *The psycholinguistic nature of the reading process*. Detroit: Wayne State University Press.

Grbich, C. (2007). *Qualitative data analysis: An introduction*. Thousand Oaks, CA: Sage.

Gregory, G., & Chapman, C. (2007). *Differentiated instructional strategies: One size doesn't fit all*. Thousand Oaks, Calif.: Corwin Press.

Guthrie, J. T. (2004). Teaching for literacy engagement. *Journal of Literacy Research, 36*(1), 1-30.

Guthrie, J. T., & Humenick, N. M. (2004). Motivating students to read: Evidence for classroom practices that increase reading motivation and achievement. In P. McCardle & V. Chhabra (Eds.), *The voices of evidence in reading research* (pp. 213–234). Baltimore, MD: Paul H. Brookes Publishing Co.

Guzman, D. C. (2002). Where in the Oregon Trail Is Carmen Sandiego? A commentary on software and its sensitivity to diversity. *Multicultural Education, 10*(2), 31-34.

Harper, C., & de Jong, E. J. (2005). Working with English language learners: What's the difference? In A. Huerta-Macias (Ed.), *Working with English Language Learners: Perspectives and practice* (pp. 55-68). Dubuque, IA: Kendall Hunt.

Harper, C., Platt, E., Naranjo, C., & Boynton, S. (2007). Marching in unison: Florida ESL teachers and No Child Left Behind. *TESOL Quarterly, 41* (3), 642-651.

Hasselbring, T., Goin, L., & Taylor, R. (2000). The computer doesn't embarrass me. In Jossey-Bass (Ed.), *The Jossey-Bass Reader on Technology and Learning* (pp. 209-214). San Francisco, CA: Jossey-Bass

Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany: State University of New York Press.

Heath, S. B. (1983). *Ways with words: Ethnography of communication in communities and classrooms*. New York: Cambridge University Press.

Herrera, S. G., & Murry, K. G. (2005). *Mastering ESL and bilingual methods: Differentiated instruction for culturally and linguistically diverse (CLD) students*. Boston: Pearson Allyn and Bacon.

Hinkel, E. (2003). Simplicity without elegance: Features of sentences in L1 and L2 academic texts. *TESOL Quarterly, 37*(2), 275-301.

Hodder, I. (2000). The interpretation of documents and material culture. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 703-715). Thousand Oaks, CA: Sage.

Holstein, J. A., & Gubrium, J. F. (Eds.). (2003). *Inside interviewing: New lenses, new concerns*. Thousand Oaks, CA: Sage.

Hoover, J. J., & Patton, J. R. (2005). Differentiating curriculum and instruction for English-Language Learners with special needs. *Intervention in School and Clinic, 40*(4), 231-235.

Hubbard, P., & Siskin, C. B. (2004). Another look at tutorial CALL. *ReCALL, 16*(2), 448-461.

Jonassen, D. H. (1996). *Computers in the classroom: Mindtools for critical thinking*. Englewood Cliffs, NJ: Merrill.

Jonassen, D. H., Peck, K. L., & Wilson, B. G. (1999). *Learning with technology: An constructivist perspective*. Upper Saddle River, NJ: Merrill.

Keeler, C. G., Richter, J., Ander-Inman, L., Horney, M. A., & Ditson, M. (2007). Exceptional learners: Differentiated instruction online. In R. L. Blomeyer & C. Cavanaugh (Eds.), *What works in K-12 online learning* (pp. 208). Eugene, Or.: International Society for Technology in Education.

Kim, H. S., & Kamil, M. L. (2004). Adolescents, computer technology, and literacy. In T. L. Jetton & J. A. Dole (Eds.), *Adolescent literacy research and practice* (pp. 351–368). New York: The Guildford Press.

Kincheloe, J. (2005). *Critical constructivism*. New York: Peter Lang.

Kirsch, I., de Jong, J., LaFontaine, D., McQueen, J., Mendelovits, J., & Monseur, C. (2002). Reading for change: Performance and engagement across countries. Paris: OECD.

Krashen, S. (2004). False claims about literacy development. *Educational Leadership, 61*(6), 18.

Krashen, S. (2008). The failure of Reading First. *Reading Today* Retrieved September 8th, 2008, from http://www.sdkrashen.com/articles/failure_reading_first/index.html

Krashen, S. D. (1982). *Principles and practice in second language education*. New York: Pergamon.

Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. New York: Longman.

Kratofil, M. D. (2006). *A comparison of the effect of Scholastic Read 180 and traditional reading interventions on the reading achievement of middle school low-level readers.* Unpublished doctoral dissertation, Central Missouri State University, Missouri.

Kress, G. R. (2003). *Literacy in the new media age*. London: Routledge.

Kuzel, A. (1999). Sampling in qualitative inquiry. In B. Carabtree & W. Miller (Eds.), *Doing qualitative research* (pp. 33-45). Thousand Oaks, CA: Sage.

Kvale, S. (1996). *InterViews*. Thousand Oaks, CA: Sage

Kvale, S. (1999). The psychoanalytic interview as qualitative research. *Qualitative Inquiry, 5*(1), 87-113.

LaBerge, D., & Samuels, S. J. (1974*). Towards a theory of automatic information processing in reading*. Cognitive Psychology, 6, 293-323.

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal, 32*(3), 465-491.

Lamme, L. L. (2003). A literature perspective on Accelerated Reader. *Journal of Children's Literature, 29*(2), 37-45.

Lankshear, C., & Knobel, M. (2006). *New literacies: Everyday practices and classroom learning*. New York: Open University Press.

LaRochelle, M., & Bednarz, N. (1998). Constructivism and education: Beyond epistemological correctness. In M. Larochelle, N. Bednarz & J. W. Garrison (Eds.), *Constructivism and education* (pp. 3-20). Cambridge, U.K.: Cambridge University Press.

LeCompte, M.D., & Schensul, J.J. (1999). Designing and conducting ethnographic research. Walnut Creek, CA: AltaMira Press.

Lee, J., Grigg, W., and Donahue, P. (2007). *The nation's report card: Reading 2007* (NCES 2007–496). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, D.C.

Lincoln, Y. S. (1995). Emerging criteria for quality in qualitative and interpretive research. *Qualitative Inquiry, 1*(3), 275-289.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lord, G. (2003). Computer-mediated communication: Human-to-human communication across the Internet. *Language Learning & Technology, 7*(3), 30-33.

Lord, G. (2004). The Internet and the language classroom: A practical guide for teachers. *Language Learning & Technology, 8*(2), 20-22.

Lotherington, H. (2005). Authentic language in digital environments. In J. Egbert & G. M. Petrie (Eds.), *CALL research perspectives* (pp. 109-127). Mahwah, N.J.: L. Erlbaum Associates.

Loveless, T. (2001). *The great curriculum debate: How should we teach reading and math?* Washington, D.C.: Brookings Institution Press.

Macedo, D. P., Dendrinos, B., & Gounari, P. (2003). *The hegemony of English*. Boulder, Colo.: Paradigm Publishers.

MacGillivray, L., & Rueda, R. (2004). Listening to Inner City Teachers of English Language Learners: Differentiating Literacy Instruction. In M. C. McKenna, R. D. Robinson & J. M. Wedman (Eds.), *Issues and trends in literacy education* (pp. 96-102). Boston: Pearson/Allyn and Bacon.

Marshall, C., & Rossman, G. (2006). *Designing qualitative research*. Thousand Oaks, CA: Sage.

McCafferty, S. G. (2002). Adolescent second language literacy: Language-culture, literature, and identity. *Reading Research and Instruction, 41*(3), 279-288.

McIntosh, P. (1988). *White privilege and male privilege: A personal account of coming to see correspondences through work in women's studies*. Wellesley, MA Wellesley College, Center for Research on Women

McIntyre, A. (1997). *Making meaning of whiteness: Exploring racial identity with white teachers*. Albany State University of New York Press.

McKay, P. (Ed.). (2006). *Planning and teaching creatively within a required curriculum for school-age learners*. Alexandria, VA: TESOL.

Menken, K. (2006). Teaching to the test: How No Child Left Behind impacts language policy, curriculum, and instruction for English language learners. *Bilingual Research Journal, 30*(2), 521-546.

Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco: Jossey-Bass.

Moll, L. C. (2006). Cultural mediation: From funds of knowledge to new activity system. Gainesville, FL.

Moll, L. C., & Arnot-Hopffer, E. (2005). Sociocultural competence in teacher education. *Journal of Teacher Education, 56*(3), 242-247.

Moll, L. C., & Gonzalez, N. (2004). Engaging life: A funds of knowledge approach to multicultural education. In J. Banks & C. M. Banks (Eds.), *Handbook of research on multicultural education* (2nd ed., pp. 699-715). NY: Jossey-Bass.

Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice, 31*(2), 132-141.

Morse, J., & Richards, L. (2002). *Readme first for a user's guide to qualitative methods.* . Thousand Oaks, CA: Sage.

Murray, D. (2005). Technologies for second language literacy. *Annual Review of Applied Linguistics, 25*, 188-201.

National Center for Education Statistics. (2004). English language learner students in U.S. public schools: 1994 and 2000. Retrieved August 26th, 2008, from http://nces.ed.gov/pubs2004/2004035.pdf

Nave, J. (2007). *An assessment of READ 180 regarding its association with the academic achievement of at-risk students in Sevier County schools.* Unpublished doctoral dissertation, East Tennessee State University, Tennessee.

New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*(1), 60-92.

Niederhauser, D. S., & Stoddart, T. (2001). Teachers' instructional perspectives and use of educational software. *Teaching and Teacher Education, 17*(1), 15-31.

Nieto, S. (2004). *Affirming diversity: The sociopolitical context of multicultural education* (4th ed.). Boston, MA: Allyn and Bacon.

Nieto, S., & Bode, P. (2008). *Affirming diversity: The sociopolitical context of multicultural education* (5th ed.). Boston, MA: Allyn and Bacon.

No Child Left Behind Act. (2001). Retrieved September 1, 2008, from http://www.ed.gov/nclb/landing.jhtml?src=pb

Oppenheimer, T. (2007). Selling software: How vendors manipulate research and cheat students. *Education Next, 7*(2), 22-29.

Papalewis, R. (2004). Struggling middle school readers: Successful, accelerating intervention. *Reading Improvement, 41*(1), 24-37.

Paterson, K. (2005). *Differentiated learning: Language and literacy projects that address diverse classrooms*. Markham, Ont.: Pembroke Publishers.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Newbury Park, Calif.: Sage Publications.

Pearson, P. D. (2004). The reading wars. *Educational Policy, 18*(1), 216-252.

Pence, K. L., Justice, L. M., & Wiggins, A. K. (2008). Preschool teachers' fidelity in implementing a comprehensive language-rich curriculum. *Language Speech and Hearing Services in Schools, 39*(3), 329-341.

Proctor, C. P., Dalton, B., & Grisham, D. L. (2007). Scaffolding English language learners and struggling readers in a universal literacy environment with embedded strategy instruction and vocabulary support. *Journal of Literacy Research, 39*(1), 71-93.

Reeves, J. (2004). "Like everybody else": Equalizing educational opportunity for English language learners. *TESOL Quarterly, 38*(1), 43-66.

Reyes, M. L. (1992). Challenging venerable assumptions: Literacy instruction for linguistically different students. *Harvard Educational Review, 62*(4), 427-455.

Rothenberg, C., & Fisher, D. (2007). *Teaching English language learners: A differentiated approach*. Columbus, OH: Pearson Education.

Rumelhart, D. E. (1977). *Introduction to human information processing*. New York: Wiley.

Scholastic Inc. (2005). *READ 180 Stage B rBook: Pupil's edition*. New York, NY: Scholastic, Inc.

Scholastic Inc. (2009a). Read 180 reading intervention program: A comprehensive reading intervention solution. Retrieved July 14th, 2009, from http://teacher.scholastic.com/products/read180/overview/

Scholastic Inc. (2009b). Scholastic product information: English language learners. Retrieved July 14th, 2009, from http://teacher.scholastic.com/products/read180/overview/ell.htm

Scholastic Inc. (2009c). Background on problem. Retrieved July 14th, 2009, from http://teacher.scholastic.com/products/read180/overview/background.htm

Scholastic Inc. (2009d). READ 180: Instructional model. Retrieved July 14th 2009, from http://teacher.scholastic.com/products/read180/overview/instrmodel.htm

Scholastic Inc. (2009e). READ 180: Stage B--middle school Retrieved July 13th, 2009, from http://teacher.scholastic.com/products/read180/overview/stageB_teacher.htm

Scholastic Inc. (2009f). READ 180: Stage B-middle school student materials Retrieved July 15th, 2009, from http://teacher.scholastic.com/products/read180/overview/stageB_student.htm

Scholastic Inc. (2009g). READ 180: LBook. Retrieved July 15th, 2009, from http://teacher.scholastic.com/products/read180/overview/lbook.htm

Schulz, R. A. (2006). Reevaluating communicative competence as a major goal in postsecondary language requirement courses. *Modern Language Journal, 90*(2), 252-255.

Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research methods* (2nd ed., pp. 189-213). Thousand Oaks, CA: Sage.

Seidman, I. (1991). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teachers College Press.

Shannon, S. M., & Escamilla, K. (1999). Mexican immigrants in US schools: Targets of symbolic violence. *Educational Policy, 13*(3), 347-370.

Short, D., & Fitzsimmons, S. (2007). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners--A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.

Silverman, D. (Ed.). (2002). *Qualitative research, theory, method, and practice*. London: Sage.

Smith, F. (2004). *Understanding reading*. Mahwah, N.J.: L. Erlbaum Associates.

Smith-Maddox, R. (1998). Defining culture as a dimension of academic achievement: Implications for culturally responsive curriculum, instruction, and assessment. *Journal of Negro Education, 67*(3), 302-317.

Sternberg, B. J., Kaplan, K. A., & Borck, J. E. (2007). Enhancing adolescent literacy achievement through integration of technology in the classroom. *Reading Research Quarterly, 42*(3), 416-420.

Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, Calif.: Sage Publications.

Subramony, D. P. (2004). Instructional technologists' inattention to issues of cultural diversity among learners. *Educational Technology* (July/August), 19-24.

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-256). New York: Newbury House.

Thomas, D. M. (2005). *Examining the academic and motivational outcomes of students participating in the READ 180 program.* Unpublished doctoral dissertation, University of Kentucky, Kentucky.

Thorne, S. L. (2003). Language and the Internet. *Language Learning & Technology, 7*(2), 24-27.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, Va.: Association for Supervision and Curriculum Development.

Tomlinson, C. A. (2003). *Fulfilling the promise of the differentiated classroom: Strategies and tools for responsive teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tsai, J. H.-C., Choe, J. H., Lim, J. M. C., Acorda, E., Chan, N. L., Taylor, V., et al. (2004). Developing culturally competent health knowledge: Issues of data analysis of cross-cultural, cross-language qualitative research. *International Journal of Qualitative Methods, 3*(4), 1-14.

U.S. Department of Education. (2004). Elementary & secondary education: Title IX — general provisions. Retrieved September 6, 2008, from http://www.ed.gov/policy/elsec/leg/esea02/pg107.html#sec9101

U.S. Department of Education. (2004). New No Child Left Behind flexibility: Highly qualified teachers. Retrieved September 6th, 2008, from http://www.ed.gov/nclb/methods/teachers/hqtflexibility.html

Vitus, K. (2008). The agonistic approach: Reframing resistance in qualitative research. *Qualitative Inquiry, 14*(3), 466-488.

von Glasersfeld, E. (1995). *Radical constructivism: A way of knowing and learning*. Washington, D.C.: Falmer Press.

Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

Wadsworth, B. J. (1996). *Piaget's theory of cognitive and affective development: Foundations of constructivism*. White Plains, N.Y.: Longman Publishers USA.

Walsh, C. S. (2006). *Re-envisioning adolescent literacies in new time multiliteracies, multimodalities and digital technologies.* Unpublished doctoral dissertation, Teachers College, Columbia University, United States -- New York.

Warschauer, M. (2005). Sociocultural perspectives on CALL. In J. Egbert & G. M. Petrie. (Eds.), *CALL research perspectives*. Mahwah, N.J.: L. Erlbaum Associates.

Warschauer, M., Knobel, M., & Stone, L. (2004). Technology and equity in schooling: Deconstructing the digital divide. *Educational Policy, 18*(4), 562-588.

White, L. M. (2007). *A middle school under review: A study on the effectiveness of two implementation models of the Read 180 program on special education students' reading performance.* Unpublished doctoral dissertation, University of Delaware, Delaware.

Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in qualitative research. *Qual Health Res, 11*(4), 522-537.

Witkowski, P. M. (2004). *A comparison study of two intervention programs for reading-delayed high school students.* Unpublished doctoral dissertation, University of Missouri - Saint Louis, Missouri.

Woods, D. E. (2007). *An investigation of the effects of a middle school reading intervention on school dropout rates.* Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Virginia.

Wu, C.-H., Kim, J.-Y., & Harper, C. (2007). Issues in equitable assessment for English language learners: A book review essay. *Sunshine State TESOL Journal, 6*(1).

Zehr, M. A. (2008). Hurdles remain high for English-learners. *Education Week, 27*(39), 1-11.

Zentella, A. C. (2000). Puerto Ricans in the United States: Confronting the linguistic repercussions of colonialism. In S. McKay & S-L C. Wong (Eds.), *New immigrants in the United States: Readings for second language educators*. Cambridge, U.K.; New York: Cambridge University Press.

Zentella, A. C. (2000). Puerto Ricans in the United States: Confronting the linguistic repercussions of colonialism. In S. McKay & S. C. Wong (Eds.), *New immigrants in the United States: Readings for second language educators* (pp. 137-164). Cambridge, U.K.; New York: Cambridge University Press.

Zigmond, N. (1995). Inclusion in Kansas: Educational experiences of students with learning disabilities in one elementary school. *Journal of Special Education, 29*(2), 144-154.

Zigo, D. (2001). Rethinking reciprocity: Collaboration in labor as a path toward equalizing power in classroom research. *International Journal of Qualitative Studies in Education, 14*(3), 351-365.

Children's Literature

Brashares, A. (2003). *The sisterhood of the traveling pants*. New York: Delacorte Press.

Creech, S. (2002). *Ruby Holler*. New York: Joanna Cotler Books/Harper Collins Publishers.

Funke, C. (2007). *Inkspell.* New York: The Chicken House.

Garcia, P. P. (1997). *From amigos to friends.* Houston, TX: Arte Publico.

Hale, S. (2005). *Princess academy*. New York: Bloomsbury Children's Books.

Jones, H. (2008). *The lost journal of Indiana Jones.* New York: Pocket books.

Mashima, H. (2003). *Rave master*. Los Angeles, CA: TokyoPop.

Matas, C. (1993). *Daniel's story*. New York: Scholastic.

Meyer, S. (2005). *Twilight*. New York: Little, Brown and Co.

Meyer, S. (2006). *New moon*. New York: Little, Brown and Co.

Meyer, S. (2007). *Eclipse*. New York: Little, Brown.

Voigt, C. (1981). *Homecoming*. New York: Atheneum.

Voigt, C., & Atheneum. (1982). *Dicey's song*. New York: Atheneum.

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