Teacher Perceptions of Formative Assessments on Student Learning in K-12 Classrooms

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IMPACT OF LANGUAGE PROGRAM MODEL ON THIRD-GRADE ENGLISH LANGUAGE LEARNERS’ PROFICIENCY IN LITERACY

By
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Abstract


Demographics within U.S. public schools have seen a drastic change over the years from the ruling of Brown v. Board of Education of Topeka (1954) which integrated schools to the current increase in English Language Learners (ELLs) within the classroom. The U.S. is known to be a melting pot, and the present-day classrooms are a clear example of this phenomenon; however, with the increase in demographics of the U.S. classrooms, ELLs are falling significantly behind their peers in reading achievement. Thus, this study examined the impact of traditional, dual-language, and full immersion settings on North Carolina third-grade ELLs’ proficiency in literacy as measured by third-grade reading end-of-grade (EOG) proficiency scores and North Carolina English Learner (EL) coordinator perceptions. Based on Cummins’s (1979) Linguistic Interdependence Hypothesis (LIH) theory and Gardner’s (2011) Multiple Intelligence (MI) theory, this comparative case study design examined the effect educational models had on ELLs’ reading achievement within a traditional classroom setting in comparison to a dual-language and a full immersion setting; Spanish two-way immersion and a full immersion. The results from this study concluded that the full immersion model had the greatest impact on the ELLs’ literacy proficiency per the reading EOG data obtained; however, close- and open-ended survey data showed EL Coordinators perceived the traditional classroom setting as an optimal learning environment for the subgroup.

**Keywords:** English Language Learners, literacy, bilingual education, immersion,
English second language
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Chapter 1: Introduction

Focus of the Study

This comparative case study focused on the impact of three different instructional approaches on third-grade English Language Learners during literacy instruction in North Carolina public schools: traditional, Spanish two-way immersion, and Spanish full immersion.

A congressionally mandated study found that students classified as English Language Learners (ELLs) received lower grades, were perceived by their teachers to be academically inferior to their peers, and on average performed significantly lower than their peers on standardized tests of reading and math (U.S. Department of Education, 2002). In 2002, then-President George W. Bush signed the No Child Left Behind Act (NCLB) into law (Hess & Petrilli, 2004, para. 1) to address these issues. With the creation of this landmark 2002 federal law, the U.S. Department of Education defined Limited English Proficiency (LEP) students as individuals “who lacked sufficient mastery of English to meet state standards and excel in an English-language classroom” (National Council of Teachers of English, 2008, p. 2); however, “rather than suggesting that non-native English-speaking students are deficient” (p. 3), the term ELL became more frequently used in the educational system to describe this subgroup (National Council of Teachers of English, 2008). Within this study, the terms ELL, LEP, and Second Language Learner (SLL) are used interchangeably to describe the target population.

During the signing of NCLB, the former United States Secretary of Education Rod Paige stated, “For too long, many of our schools did a good job educating some of
our children. With this new law, we’ll make sure we are providing all of our children access to a high-quality education” (Smith, 2002, para. 2). The authorization of NCLB “required each state to adopt English language proficiency standards” (Hakuta, 2011, p. 168) and accountability targets. The accountability targets measured ELLs’ “progress on English language proficiency assessments and also for progress in attaining proficiency in content areas” (Hakuta, 2011, p. 168). To meet these targets and standards, NCLB mandated states provide high-quality research-based instruction with a proven track record of increasing ELLs’ English proficiency and academic achievement (U.S. Department of Education, 2002). With these mandates also came a commitment to the world that NCLB would “ensure every child could read at grade level or above by the end of third-grade” (“No Child Left Behind Act (2002),” 2018, para. 4).

Per the National Center for Education Statistics (2012), ELLs make up 10% of the U.S. public school population. Capps et al. (2005) noted that the ELL population within U.S. schools is mostly made up of individuals of Hispanic and Asian ancestry. In addition, ELLs are notably concentrated in low-income schools, thus ELLs make up a large portion of the students identified for free/reduced lunch (Capps et al., 2005). The 2015 National Assessment of Educational Progress (NAEP) revealed 21% of students receiving free/reduced lunch scored at or above the proficient level, compared to their noneligible peers at 52% (U.S. Department of Education, 2015c). These discrepancies in performance served as a catalyst for this study.

**Balanced Literacy**

To accomplish NCLB’s commitment of having every child read by the end of third grade, the Reading First initiative emerged. The Reading First initiative increased
the adoption and implementation of research-based reading instruction programs in early grades (U.S. Department of Education, 2002). In North Carolina, the Reading First initiative led to the balanced literacy approach within some public schools.

Balanced literacy is the integration of “direct, explicit, and systematic instruction in letter-sound relationships and critical thinking about literature that provides students with the opportunity to receive instruction and have practice in both decoding and comprehension processes” (Teach for America, 2011, p. 5). The balanced literacy framework integrates real life concepts with literacy instruction so students can apply literacy strategies and skills in every content area and in their daily lives (Pearson HigherEd, 2005). Opportunities for students to apply what they learn are embedded into the framework through the components of read aloud, shared reading, guided reading, conferring, independent reading, word study, and sharing/reflection (Greene, 2014). The balanced literacy framework stands on the research-backed premise that all students can learn to read and write.

The enactment of Public-School Law 115C-81.2 in 2009 also aided in the implementation of the balanced literacy framework (Justia, n.d.). The law directed the State Board of Education to revise the Standard Course of Study to provide school districts guidance in implementing effective programs of reading instruction that incorporated a balance in reading and writing (Justia, n.d.).

**Balanced literacy and basal instruction.** Within a suburban elementary school near Baltimore, MD, the academic effects of balanced literacy and basal instruction were studied using first graders (Carr, 2007). Based on the structure of the basal approach, teachers within the study using basal instruction taught reading by relying on phonemic
awareness, decoding, and word attack skills or by teaching students to read for understanding. Furthermore, these teachers relied on accompanying workbooks and/or a grade-leveled series of textbooks produced by an educational publisher to teach reading. Alternatively, teachers utilizing the balanced literacy approach taught reading through written text (Carr, 2007). This study concluded, “balanced literacy had more of a positive academic effect than basal instruction on the students” (Carr, 2007, p. 61).

**Balanced literacy and mCLASS.** In 2012, an urban district in the southeastern region of the United States implemented balanced literacy in 17 elementary schools with the goal of balanced literacy being utilized in all elementary schools by the 2015-2016 school year (Greene, 2014). The implementation was conducted in phases, with phase 3 schools implementing balanced literacy and receiving the most support and funding. Phase 1 and 2 schools continued with a basal reading approach and received less funding and less support (Greene, 2014). Student growth was measured using mCLASS: Reading 3D, “an observational reading assessment software in English and Spanish for grades K–6” (Amplify, 2018, para. 2). According to a Reading 3D Summary Document (n.d.),

This test measures a student’s ability to read and understand text. The student is given a passage to read orally and the teacher conducts a running record reading assessment while the student reads orally. The student then answers both oral and written questions and the student’s oral reading, miscues, oral and written responses are scored to arrive at a reading level of either frustration, independent, or instructional. The leveling system used to determine reading levels is Fountas and Pinnell (2017) Guided Reading Levels A-Z. (p. 2)

Greene’s (2014) program evaluation of this implementation utilizing the
mCLASS: Reading 3D assessment found that in comparison to phase 1 and 2 schools, phase 3 schools had the highest rate of student reading growth, concluding that the schools implementing the balanced literacy framework produced students with greater literacy proficiency.

**Literacy Instruction for ELLs**

Although the effectiveness of balanced literacy on the general student population has been researched extensively, limited research on the effect of the balanced literacy strategy on ELL achievement exists. In 2004, Weber piloted a case study on one first-grade ELL student to document the development of literacy skills in a balanced literacy classroom. The research questions were “How does a first grade Mexican-American second language learner (SLL) acquire literacy skills in a balanced literacy classroom,” “Do SLLs use different processes from those used by children whom English is a first language,” and “What components of balanced literacy best support the second language learner?” (Weber, 2004, p. 65). Based on a lack of academic progress made by the participant, the researcher began to look at the broader concepts of conditions that are necessary for most children to succeed. Furthermore, research results indicated that SLLs tended to be visual learners, thus visual cues and peer checking of work provided by the balanced literacy framework helped SLLs process new information (Weber, 2004); however, the current research on balanced literacy’s specific impact on ELLs is not substantial.

Research instead has centered on practices to advance ELLs English language proficiency (ELP) to increase their gains in literacy and academics overall (Center for Public Education, 2007). According to Thomas and Collier (2002),
The minimum length of time it takes to reach grade-level performance in second language (L2) is 4 years. Furthermore, only ELLs with at least 4 years of primary language schooling reach grade-level performance in L2 in 4 years. As a group, students with no primary language schooling (either in home country or host country) are not able to reach grade level performance in L2. (p. 9)

The authors noted, however, that ELLs, “bilingually schooled, outperform comparable monolingual schooled students in academic achievement in all subjects, after 4-7 years of dual language schooling” (Thomas & Collier, 2002, p. 9). In 1968, the Bilingual Education Act was enacted to federally fund bilingual programs for ELLs in the interest of equal educational opportunities (Stewner-Manzanares, 1988).

With the authorization of NCLB, the Bilingual Education Act was revised to the English Language Acquisition, Language Enhancement, and Academic Achievement Act (Title III; Glavin, 2016). Crawford (2002) highlighted a difference between the two acts: This marks a 180-degree reversal in language policy. Whereas the 1994 version of the Bilingual Education Act included among its goals developing the English skills … and to the extent possible, the native-language skills of LEP students, the English Language Acquisition Act stresses skills in English only. (para. 4)

**Description of the Problem**

NCLB uncovered many hidden skeletons of the educational system, including the academic disparity between ELLs and other subgroups. Since the enactment of NCLB, researchers have examined and analyzed effective instructional practices for ELLs. South Carolina and Louisiana are two states closing the achievement gap. Per the fourth-grade reading measure, fourth-grade ELL and non-ELL student performances on the
assessment are relatively similar (Murphey, 2014); however, other states are not making the same progress with their ELL population. Due to the differences between scholars and researchers on the subject, controversy surrounding the effective teaching strategies for elementary ELLs exists.

Bilingual education is one of the teaching strategies for ELLs that has come under controversy. According to Zarobe and Catalan (2009), “Defined broadly, bilingual education can mean the use of two languages in school by teachers, students, or both for a variety of social and pedagogical purposes” (p. 24). Several models for bilingual education are utilized in the United States public schools. In this study, the researcher looked specifically at the two-way immersion model and full immersion model. “The two-way immersion model is also known as ‘dual-language education,’ ‘dual-language immersion,’ ‘bilingual immersion,’ and ‘Spanish immersion’ and these terms are often used interchangeably, although the implementation of the program may differ slightly from school to school” (Kim, Hutchinson, & Winsler, 2013, p. 241). Within this study, two-way immersion and dual-language immersion are used interchangeably. Although not a form of bilingual education, the researcher also included the English as a Second Language (ESL) model within the study because of its prevalent use with ELLs in U.S. public schools.

**ESL model.** The ESL model is most commonly utilized in elementary schools and involves an ESL teacher instructing only ELLs in a separate setting for a portion of the school day on English language skills (Kim et al., 2013). Only certain ELLs receive instruction under this model. According to the Education Commission of the States (2014),
Based on federal law school districts and charter schools must have a system to determine the language(s) spoken in each students’ home and to objectively identify students who need language support services due to their limited proficiency in speaking, reading, writing, or understanding English. (para. 1)

Specifically, North Carolina determines whether a student qualifies for ESL services through the completion of a home language survey by every parent/guardian upon the enrollment of their child within a North Carolina public school (Education Commission of the States, 2014).

Unfortunately, according to Abedi (2008), “the validity of home language surveys is questionable due to parents giving inconsistent information based on concerns over equity of opportunity for their children, citizenship issues, and/or poor comprehension of the survey form” (p. 18). Nonetheless, the home language survey determines if a student is assessed for ELP and possibly receives ESL services if the parent indicates a language other than English is spoken in the home. The North Carolina State Board of Education approved the adoption of the WIDA Consortium English language development standards beginning with the 2008-2009 school year. Beginning with the 2008-09 school year, the WIDA ACCESS Placement Test, also referred to as the W-APT™, has been administered to all students who identify a language other than English during the Home Language Survey process. The W-APT functions as a screener used for initial assessment and English as a Second Language (ESL) program placement of students identified as limited English proficient (LEP). (North Carolina Department of Public Instruction, 2014c, p. 1)

Once a student is classified as Limited English Proficient (LEP), the student must
be assessed every year using the Assessing Comprehension and Communication in English State-to State for English Language Learners (ACCESS for ELLs) to determine ELP progress (North Carolina Department of Public Instruction, 2014c). Test forms are designed for ELLs in Grades K-12 and are divided into five grade-level clusters with Grades 3-5 being clustered together (North Carolina Department of Public Instruction, 2014c). There is a test in each of the four language domains: reading, listening, writing, and listening. As ELLs receive ESL instruction, they should be progressing towards English language development proficiency. The ESL model of instruction provides no instruction in the ELLs’ native language; thus, it can take ELLs receiving this form of instruction several years to acquire English skills at grade level (Thomas & Collier, 1997). Despite the length of time of English language acquisition, the ESL model is favored over the two-way immersion model.

**Two-way immersion model.** The two-way immersion model is also being used in elementary schools but is not as widely utilized because of the contrary opinions surrounding the model. Two-way immersion refers to instructional models where both ELLs and English native speakers are taught in both English and native language (Kim et al., 2013). As cited in Center for Public Education (2007), August and Shanahan (2006) noted that the National Literacy Panel on Language-Minority Children and Youth reported, “oral proficiency and literacy in ELL’s first language (L1) can facilitate literacy development in English, and inclusion of first language instruction in ELL programs can have long-term benefits” (para. 1). Two-way immersion programs across the United States have shown significant results in increasing ELL academic achievement in literacy.
**ESL model vs. two-way immersion model.** Limited research exists, however, on whether two-way immersion models are effective programs for ELLs. According to Kim et al. (2013), small sample sizes, similar social class of ELLs, and a comparison of ELLs in ESL models versus two-way immersion models limit the generalizability of findings; therefore, research needs to be conducted on a larger sample size of ELLs from various socioeconomic groups. The research must also include findings on the level of literacy proficiency of ELLs only receiving instruction in the key components of reading, identified by the National Reading Panel (National Institute of Child Health and Human Development [NICHD], 2000) as phonemic awareness, phonics, fluency, vocabulary, and text comprehension versus ELLs receiving instruction in the key components, oral language development, and native language instruction.

According to August and Shanahan (2006), simultaneous teaching in the main components of reading improves literacy proficiency for ELLs. Research also shows that reading programs incorporating the key components to meet the needs of ELLs provide the maximum literacy proficiency advantage for language-minority students (August & Shanahan, 2006). It is suggested by August and Shanahan that ELLs of Hispanic descent increase their English reading proficiency when given increased exposure and English instruction on phonemes that do not exist in their native language.

**Full (or total) immersion model.** As the key to the academic success of ELLs continues to be questioned and studied, the effectiveness of immersion programs is still questioned. According to Erdos, Genesee, Savage, and Haigh (2011), despite the proven success of bilingual education, there is a “high rate of student attrition from immersion programs cited from student reading difficulties” (p. 4). As a result, to increase higher
levels of academic proficiency bilingual education, program designers have started to embrace the full immersion, interchangeably known as total immersion, model (Genesee & Fortune, 2014).

The full immersion model originated in Canada and gained traction in North America as educators pushed towards bilingualism and biliteracy for students (Genesee & Fortune, 2014). In a full immersion program, students in grades kindergarten through second grade receive core academic instruction in the target language with little to no English academic instruction until upper grades (Center for Applied Linguistics, 2011, p. 1). The benefits of full immersion versus two-way immersion is that a large part of the day is spent conversing in the target language which promotes self-correction of the pronunciation of words and the misuse of nouns or verbs by hearing others speak (Cochran, 2012). Studies conducted by Genesee (1978) and Bruck (1982) concluded that students in immersion programs with lower levels of English language development achieved at similar academic proficiency as ELLs with lower levels of English language development who attended an all English program (as cited in Paulston, 1988). So, the question remains as to which educational model provides the greatest academic impact on ELLs. Within this study, the terms educational model and instructional model are used interchangeably to describe the language programs utilized to assist ELLs.

According to Levinsky, Marzano, and Wenglinsky (as cited in Pacific Policy Research Center, 2010), “Good instruction is associated with higher student outcomes regardless of the type of educational model that is used” (p. 8).

**Definition of Terms**

For clarity and understanding the research, the following descriptions are used to
define essential terms.

**Basal instruction.** “Basal readers are usually a grade-leveled series of textbooks produced by an educational publisher which focus on teaching reading either by a code-emphasis approach or a meaning-emphasis approach” (Morin, 2019, para. 2).

**Balanced literacy.** “Balanced literacy is the integration of direct, explicit, and systematic instruction in letter-sound relationships and critical thinking about literature that provides students with the opportunity to receive instruction and have practice in both decoding and comprehension processes” (Teach for America, 2011, p. 5).

**Bilingual education.** Zarobe and Catalan (2009) defined bilingual education as the “use of two languages in school by teachers, students, or both for a variety of social and pedagogical purposes” (p. 24).

**Common Core.** According to the Common Core State Standards Initiative (2018), Common Core is a set of academic standards that outline the skills and knowledge that are necessary at the completion of each grade level to ensure the success of a student after graduating high school.

**Educational model.** Bussinger (2011) defined educational model as the “philosophical foundation of any overall approach and belief about learning, instruction, and content” (para. 5).

**ELLs.** Defined by the Great Schools Partnership (2013), English language learners, or ELLs, are students who are unable to communicate fluently or learn effectively in English, who often come from non-English-speaking homes and backgrounds, and who typically require specialized or modified instruction in both the English language and in their academic courses.
(para. 1)

**Frustration reading level.** Defined by the Florida Center for Reading Research (n.d.) as the “level at which a reader reads at less than a 90% accuracy (i.e., no more than one error per 10 words read)” (p. 6).

**Full (or total) immersion.** “Programs in which all or almost all subjects taught in the lower grades (K-2) are taught in the foreign language; instruction in English usually increases in the upper grades (3-6) to 20%-50%, depending on the program” (Center for Applied Linguistics, 2011, p. 1).

**Independent reading level.** Defined by the Florida Center for Reading Research (n.d.) as the “level at which a reader can read text with 95% accuracy (i.e., no more than one error per 20 words read)” (p. 7).

**Instructional reading level.** Defined by the Florida Center for Reading Research (n.d.) as the “level at which a reader can read text with 90% accuracy (i.e., no more than one error per 10 words read)” (p. 8).

**LEP.** “Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient, or ‘LEP’” (Limited English Proficiency, n.d., para. 1).

**Majority language.** Fortune and Tedick (2003) defined majority language as the “language spoken by the majority of people in a given regional or national context, for example, English in the U.S., Spanish in Spain, Japanese in Japan, etc.” (para. 3).

**Minority language.** Fortune and Tedick (2003) defined minority language as a “language other than the one spoken by the majority of people in a given regional or national context, for example, Spanish in the U.S., Basque in Spain, English in Japan,
etc.” (para. 3).

**Newcomer program.** School aged children who arrive in the United States from other countries and speak a variety of languages attend classes part of the school day to aid in developing beginning language skills and then the remainder of the school day are in regular classes with their English-speaking peers (National Clearinghouse for English Language Acquisition, n.d.).

**SLLs.** According to Weber (2004), SLLs are non-native English speakers or individuals learning English as an additional language.

**Sheltered Instruction Observation Protocol (SIOP).** “A research-based and validated instructional tool that has proven effective in addressing the academic needs of English learners throughout the United States” (Center for Applied Linguistics, 2018a, para.1).

**Traditional classroom setting.** For the purpose of this study, the researcher has defined this term as a multilingual instructional setting in which all students may not speak the same native language but are all being taught solely in English.

**Two-way immersion.** Programs in which all students (both ELLs and native speakers of English) are instructed in both English and native language (Kim et al., 2013). Within this study, two-way immersion and dual-language immersion are used interchangeably.

**Study Overview**

This study addressed the impact educational models (traditional, Spanish two-way immersion, and full Spanish immersion) have on third-grade ELLs’ proficiency in literacy. A review of the research gives weight to the idea that the balanced literacy
framework is effective in comparison to other literacy instruction programs; therefore, based on the research proving balanced literacy’s effectiveness, this study did not conduct a program evaluation of the balanced literacy program. Instead, the study’s focus was on a comparative analysis of each specific model’s implementation of literacy through native language and/or second language and its impact on decreasing the literacy achievement gap within the ELL subgroup.

A comparative case study analysis was chosen as the research design for this study due to its “emphasis on examining causality (i.e., the extent to which the intervention caused the results, particularly outcomes and impacts)” (Goodrick, 2014, p. 1) utilizing qualitative and quantitative data. According to Goodrick (2014), “comparative case studies involve the analysis and synthesis of the similarities, differences and patterns across two or more cases that share a common focus or goal” (p. 1). The parallels and variances found in the study are used to support or rebut proposals as to why an intervention is successful or unsuccessful (Goodrick, 2014).

This comparative case study commenced with accumulating quantitative data and then corroborating the quantitative findings with detailed qualitative data. In the first phase of the study (quantitative), grade-level proficiency end-of-grade (EOG) reading data were collected from ELL third graders at traditional elementary schools, full immersion schools, and Spanish two-way immersion schools. The EOG data of the ELL third graders were gathered from the past 3 consecutive school years to increase reliability of the educational model closing the achievement gap for ELLs in reading. In addition, North Carolina English Learner (EL) coordinator survey data were collected and examined to provide data on educators’ knowledge and beliefs on instructing ELLs
in literacy as well as providing information on additional instructional strategies used within the classroom to increase ELLs’ literacy proficiency.

As a follow-up of the quantitative findings, the second phase (qualitative) was administered as North Carolina EL coordinators answered open-ended survey questions on their knowledge and beliefs on increasing third-grade ELLs’ reading proficiency. Perceptions from North Carolina EL coordinators were chosen because of their goal to “build capacity at the local school system level and sustain statewide implementation of research-based strategies to meet the needs of our English learners” (North Carolina Department of Public Instruction, 2018a).

**Research Questions**

1. What difference exists in literacy proficiency of third-grade ELLs in the Spanish two-way immersion, full immersion, and traditional classroom as measured by third-grade reading EOG assessment scores?

2. What are the perceptions of North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency?

**Theoretical Framework**

To begin answering the identified research questions, it was necessary to understand how children learn. According to Shaffer and Kipp (2013), all children reach linguistic milestones about the same time, despite their native language. According to Chomsky’s nativism theory, native language is acquired through a child’s interactions with parents and the environment (Wong, 2011). “By age 5, children already know and use the syntactical structures of their native language” (Shaffer & Kipp, 2013, p. 332). As children enter the educational system, language acquisition research has identified a
need for minority language students to be first instructed in their mother tongue and then the second language (L2) to be introduced (Vrooman, 2000). Cummins’s (1979) Linguistic Interdependence Hypothesis (LIH) lays the groundwork for much of this research.

According to Vrooman (2000),

The LIH posits that a sufficiently developed level of academic proficiency in the L1 is indispensable for academic success in L2 study. An insufficiently developed L1 at the time that extensive exposure to an L2 begins can hinder subsequent mother tongue development as well as inhibit L2 development. The LIH argues that development of skills in the L2 is a function of the skills already developed in the L1, and that “a cognitively and academically beneficial form of bilingualism can be achieved only on the basis of adequately developed L1 skills.” (p. 37)

Bilingual programs were created in the early 1960s to foster a learning environment in which there was not a superior or inferior culture or language but equal understanding and value of all cultures and languages represented within the classroom (Unger, 2001). The bilingual framework creates bilingualism and biliteracy of students through core academic instruction in two target languages (Unger, 2001); however, based on Cummins’s (1979) LIH, the question remained whether bilingual programs are helping or hurting ELLs’ language acquisition in their native and second language which in turn may affect their literacy proficiency.

**Professional Significance of the Study**

This study explored the connection between reading proficiency of third-grade
ELLs receiving literacy instruction in a traditional classroom setting in comparison to
third-grade ELLs receiving literacy instruction in a Spanish two-way immersion or a full
immersion setting. Results from the study highlight the instructional model most
conducive for an ELL to be academically successful in literacy. In addition, the study
provides the necessary tools to replicate smaller district-wide initiatives.

Limitations

The limitations of a study are the constraints on generalizability, applications to
practice, and/or utility of findings that are the result of the ways in which the
researcher initially chose to design the study, and/or the method used to establish
internal and external validity. (University of Southern California, 2018, para. 1)

This study had the limitation of focusing on the effectiveness of classroom settings on
ELLs within a traditional classroom, Spanish two-way immersion classroom, and a full
immersion classroom in North Carolina public schools. This study is not necessarily
applicable to other geographic regions. In addition, this study had the limitation of a
small sample size with its two-way and full immersion schools because not all districts in
North Carolina have implemented these types of educational models. Currently, there are
109 public bilingual elementary schools in North Carolina (North Carolina Dual
Language/Immersion, 2018) of 1,434 public elementary schools (School Digger, 2018).

Delimitations

A delimitation is a “systematic bias intentionally introduced into the study design
or instrument by the researcher” (Price & Murnan, 2013, p. 66). Three important
delimitations of the study must be noted. The first delimitation of this study was that it
focused primarily on public schools in North Carolina that have 3 years of consecutive
third-grade ELL reading grade-level proficiency EOG data. These parameters were chosen to show which educational model had exhibited the most effectiveness on ELLs’ literacy over a substantiated time.

The second delimitation of the study was the limited data that were collected on literacy proficiency. Literacy proficiency is comprised of mastery of speaking, listening, writing, and reading skills; however, for this study, the focus was solely on grade-level specific reading skill mastery. Within third grade, all four areas are addressed in assessing a student’s literacy proficiency, but reading proficiency is the only skill within the district that has a standardized test; therefore, data for the other three literacy proficiency skills can be subjective.

Last, open-ended survey data to assess best practices to increase ELLs’ literacy proficiency was obtained from North Carolina EL coordinators instead of teachers because of their expertise on the subject. In addition, North Carolina EL coordinators influence what teaching practices for ELLs are implemented by teachers in each district; therefore, with the triangulation of data, the variables to increase ELLs’ literacy proficiency were pinpointed.

According to NAEP in 2015, the achievement gap between non-ELL and ELL students was 37 points at the fourth-grade level and 45 points at the eighth-grade level; these gaps were not measurably different from the achievement gaps observed in 2013 and 1998 (National Center for Education Statistics, 2017, para. 7). Educational reform initiatives are working to fix the academic disparities of ELLs, but only a validity study on these initiatives can determine their impact.
Chapter 2: Literature Review

Roots of Accountability

In 1892, the National Association appointed a committee comprised of college presidents and educators to create a document entailing curricular recommendations for the United States public elementary and secondary schools (Spellings, 2009). The report determined that a single academic curriculum should be implemented within all public schools that would require all students to master grade-level specific objectives in order to meet grade-level expectations (Spellings, 2009). During this period, schools were segregated by race; however, Title VI of the 1964 Civil Rights Act forced racial integration in all United States public schools (U.S. Department of Education, 2015b).

During President Johnson's term, the federal government enacted the Economic Opportunity Act of 1964 which created the Head Start Program, Job Corps, and the Elementary and Secondary Education Act of 1965 (ESEA) as an even-the-playing-field solution for low socioeconomic and/or struggling students (Illinois Association of Community Action Agencies, n.d.). In 1983, the National Commission on Excellence in Education reexamined the United States educational system (U.S. Department of Education, 1999). The report, A Nation at Risk, highlighting the lack of students meeting curricular expectations in United States public schools was published as a result (U.S. Department of Education, 1999). The report caused numerous reforms and stringent federal improvement acts; however, the reforms failed to consider the academic needs of ELLs and placed no responsibility of student performance on schools or districts until President George W. Bush enacted NCLB. NCLB set clear curricular expectations of what schools must accomplish with all students and outlined the repercussions schools
and districts would incur if adequate yearly progress (AYP) was not made by most students in each subgroup representative of the student population (Editorial Projects in Education Research Center, 2015).

**ELLs and Accountability**

Over the years, immigration in the United States has increased and has brought with it a growth in the number of homes in which school age children reside where English is not the native language.

According to Wright (2015),

Before the passage of NCLB, each state set its own policies on how to identify Limited English Proficient (LEP) students. In most states, at the time of initial school enrollment, schools would administer a home language survey to determine whether students came from a household with a “primary home language other than English” (PHLOTE). School districts were then required to assess PHLOTE students with an ELP test to identify LEP students. Decisions about which test to use among many on the market were frequently made at the district level. There is great variability among the tests and from one district to the next and one state to the next in assessments used and procedures followed to identify and report the number of LEP students. Even at the national level, attempts to measure the national LEP student population accurately prove problematic because of the lack of data and inconsistencies among data sets. (para. 7)

To bring consistency with LEP labeling, the general requirements of NCLB’s Title IX, Part A, Section 9101, mandated a Home Language Survey indicating a student
as bilingual and a score showing inadequate ability in one of the domains—listening, speaking, reading, writing (Center for Public Education, 2007). In 1997, the first national ELP standards in the U.S. were published to ensure ELLs were receiving quality and equal education in U.S. public schools (Fenner & Segota, n.d.). Concurrently, utilizing the *ESL Standards for Pre-K-12 Students* manual as a guide, each state was mandated to develop ELP standards for their ELL students (Fenner & Segota, n.d.). In 2004, the World-Class Instructional Design and Assessment (WIDA) Consortium, comprised of 19 member states under the funding auspices of the U.S. Department of Education Enhanced Assessment Grant, created all-inclusive ELP standards that focused on ELLs becoming increasingly proficient in social and academic English (WIDA Consortium, 2014). This move was a clear response to the growing demands legislated in NCLB and aided in Teaching English to Speakers of Other Languages (TESOL) program revisions of its own standards in 2006.

**Proficiency Testing**

In response to NCLB’s state statute mandates, the consortium member states adopted WIDA’s ACCESS for ELLs 2.0 (ACCESS) test “as the instrument they use to annually assess ELLs for the purposes of measuring annual gains in English language proficiency--Annual Measurable Achievement Objectives (AMAOs)--and for accountability” (WIDA, 2014, para. 2). The areas of listening, speaking, reading, writing, and comprehension are measured by ACCESS (WIDA, 2017a). In 2016-2017, with the addition of an online testing format, proficiency-level expectations were increased “to adapt to the influence of the new college- and career-ready state standards and the associated shift in linguistic demands and increased academic language rigor.
identified in these standards” (WIDA, 2017a, p. 5). Speaking expectations increased the most, followed by reading and writing, with the least impact on the listening domain (WIDA, 2017b, p.1). The “ACCESS results are reported as scale scores and English language proficiency level scores” (WIDA, 2017a, p. 8); however, with the new expectations in place, ACCESS ELP test scores before 2016 cannot be compared to new English language scores from 2016-2017 and after. As seen in Tables 1 and 2, WIDA consortium established performance definitions and levels to indicate an ELL’s parity with his/her English-proficient peers.
Table 1

ACCESS Test Scoring Guide: Reading & Listening

<table>
<thead>
<tr>
<th>Discourse Dimension</th>
<th>Sentence Dimension</th>
<th>Word/Phrase Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic Complexity</td>
<td>Language Forms and Conventions</td>
<td>Vocabulary Usage</td>
</tr>
</tbody>
</table>

Level 6 – Reaching

English language learners will process a range of grade-appropriate oral or written language for a variety of academic purposes and audiences. Automaticity in language processing is reflected in the ability to identify and act on significant information from a variety of genres and registers. English language learners’ strategic competence in processing academic language facilitates their access to content area concepts and ideas.

At each grade, toward the end of a given level of English language proficiency, and with instructional support, English language learners will process…

<table>
<thead>
<tr>
<th>Level 5 – Bridging</th>
<th>Level 4 – Expanding</th>
<th>Level 3 – Developing</th>
<th>Level 2 – Emerging</th>
<th>Level 1 – Entering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich descriptive discourse with complex sentences</td>
<td>Connected discourse with a variety of sentences</td>
<td>Discourse with a series of extended sentences</td>
<td>Multiple related simple sentences</td>
<td>Single statements or questions</td>
</tr>
<tr>
<td>Cohesive and organized, related ideas across content areas</td>
<td>Expanded related ideas characteristic of particular content areas</td>
<td>Related ideas specific to particular content areas</td>
<td>An idea with details</td>
<td>An idea within words, phrases, or chunks of language</td>
</tr>
<tr>
<td>A variety of complex grammatical structures</td>
<td>Complex grammatical structures</td>
<td>Compound and some complex grammatical constructions</td>
<td>Compound grammatical structures</td>
<td>Simple grammatical constructions (e.g., commands, Wh-questions, declaratives)</td>
</tr>
<tr>
<td>Sentence patterns characteristic of particular content areas</td>
<td>A broad range of sentence patterns characteristic of particular content areas</td>
<td>Sentence patterns across content areas</td>
<td>Repetitive phrasal and sentence patterns across content areas</td>
<td>Common social and instructional forms and patterns</td>
</tr>
<tr>
<td>Technical and abstract content-area language</td>
<td>Specific and some technical content-area language</td>
<td>Specific content-area language and expressions</td>
<td>General content words and expressions, including cognates</td>
<td>General content-related words</td>
</tr>
<tr>
<td>Words and expressions with shades of meaning across content areas</td>
<td>Words or expressions with multiple meanings across content areas</td>
<td>Words and expressions with common collocations and idioms across content areas</td>
<td>Social and instructional words and expressions across content areas</td>
<td>Everyday social, instructional and some content-related words and phrases</td>
</tr>
</tbody>
</table>

Table 2

**ACCESS Test Scoring Guide: Speaking & Writing**

<table>
<thead>
<tr>
<th>Discourse Dimension</th>
<th>Sentence Dimension</th>
<th>Word/Phrase Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic Complexity</td>
<td>Language Forms and Conventions</td>
<td>Vocabulary Usage</td>
</tr>
</tbody>
</table>

**Level 6 – Reaching**

English language learners will use a range of grade-appropriate language for a variety of academic purposes and audiences. Agility in academic language use is reflected in oral fluency and automaticity in response, flexibility in adjusting to different registers and skillfulness in interpersonal interaction. English language learners’ strategic competence in academic language use facilitates their ability to relate information and ideas with precision and sophistication for each content area.

At each grade, toward the end of a given level of English language proficiency, and with instructional support, English language learners will produce…

<table>
<thead>
<tr>
<th>Level 5 – Bridging</th>
<th>Level 4 – Expanding</th>
<th>Level 3 – Developing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Multiple, complex sentences</td>
<td>• Short, expanded, and some complex sentences</td>
<td>• Short and some expanded sentences with emerging complexity</td>
</tr>
<tr>
<td>• Organized, cohesive, and coherent expression of ideas characteristic of particular content areas</td>
<td>• Organized expression of ideas with emerging cohesion characteristic of particular content areas</td>
<td>• Expanded expression of one idea or emerging expression of multiple related ideas across content areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 2 – Emerging</th>
<th>Level 1 – Entering</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Phrases or short sentences</td>
<td>• Words, phrases, or chunks of language</td>
</tr>
<tr>
<td>• Emerging expression of ideas</td>
<td>• Single words used to represent ideas</td>
</tr>
</tbody>
</table>

• A variety of complex grammatical structures matched to purpose  
• A broad range of sentence patterns characteristic of particular content areas  
• Technical and abstract content-area language, including content-specific collocations  
• Words and expressions with precise meaning across content areas  

• Complex grammatical structures  
• Sentence patterns characteristic of particular content areas  
• Specific and some technical content-area language  
• Words or expressions with multiple meanings across content areas  

• Simple and compound grammatical structures with occasional variation  
• Sentence patterns across content areas  
• Specific content language, including cognates and expressions  
• Words or expressions with multiple meanings used across content areas  

• Formulaic grammatical structures  
• Repetitive phrasal and sentence patterns across content areas  
• General content words and expressions  
• Social and instructional words and expressions across content areas  

• Phrase-level grammatical structures  
• Phrasal patterns associated with familiar social and instructional situations  
• General content words and expressions  
• Everyday social and instructional words and expressions

There are six levels of ELP, and the performance definitions provide the criteria for each level. The two emphases within each proficiency level break down the linguistic difficulty, vocabulary usage, and language control mastered by ELLs at the corresponding performance level (Cammilleri, Cranley, & Gottlieb, 2007). Alignment with the state core academic standards that reflect the grade-level specific expectations attribute to most states using a performance level 5 score on the ACCESS test to indicate an ELL student can be exited from program services (WIDA, 2014). Slight differences in each format can be seen in Table 3.

Table 3

*Online Test vs. Paper Test*

<table>
<thead>
<tr>
<th>Online Test</th>
<th>Paper Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>The grade-level clusters are 1, 2-3, 4-5, 6-8, and 9-12.</td>
<td>The grade-level clusters are 1, 2, 3, 4-5, 6-8, and 9-12.</td>
</tr>
<tr>
<td>The adaptive Listening and Reading tests are administered first, and the student’s performance determines his or her tier placement for Speaking and Writing.</td>
<td>Teachers must select which tier of the test to give to each of their students prior to the start of the test.</td>
</tr>
<tr>
<td>Writing tests are scored centrally; keyboarded responses are sent automatically to be scored, and handwritten responses need to be mailed.</td>
<td>Handwritten responses are mailed in and the Writing responses are scored centrally.</td>
</tr>
<tr>
<td>For the Speaking test, students speak into a headset to record their answers, which are centrally scored.</td>
<td>The paper-based Speaking test is administered and scored locally.</td>
</tr>
</tbody>
</table>


A difference between the online and paper-based version of ACCESS is the scoring of the speaking section. Trained raters at the Data Recognition Corporation (DRC) score the writing, reading, and listening sections of both formats of the test;
however, the speaking section of the paper-based version is scored on site by test administrators, and responses captured by the computer are scored by the DRC (WIDA, 2017a). Also, the kindergarten ACCESS test can only be given as a paper-based test. Both the online and paper ACCESS test generate the same scores and can be interpreted the same.

North Carolina Reading Proficiency Requirements

This study looked specifically at elementary schools in North Carolina.

The goal of the state is to ensure that every student read at or above grade level by the end of third grade and continue to progress in reading proficiency so that he or she can read, comprehend, integrate, and apply complex texts needed for secondary education and career success. (North Carolina Department of Public Instruction, 2011, p. 38)

North Carolina EOG test. The North Carolina EOG tests are designed for students in third through eighth grade to assess student competency on the reading, math, and science grade-level objectives specified by the North Carolina Standard Course of Study (North Carolina Department of Public Instruction, 2014b). In this study, the researcher focused solely on the reading EOG for third graders. In 2014, the State Board of Education implemented achievement level 3 which identified “students who are prepared for the next grade level, but do not meet the college-and-career readiness standard” (North Carolina State Board of Education, 2014, p. 1). Effective with the 2013-2014 school year, student scores are reported as cut scores of levels 1 through 5. For this study, the researcher looked specifically at third-grade ELLs who scored a level 3 or higher cut score on the reading EOG, which identifies them as grade-level proficient
In accordance with North Carolina’s Read to Achieve legislation, mCLASS: Reading 3D Text Reading and Comprehension (TRC) was adopted for students in kindergarten through third grade as the statewide summative diagnostic assessment (North Carolina Department of Public Instruction, 2016a). TRC is given to students three times during a school year: beginning, middle, and end of the year (North Carolina Department of Public Instruction, 2016a).

EOG assessments are solely “curriculum-based achievement assessments specifically aligned to the North Carolina Standard Course of Study” (North Carolina Department of Public Instruction, 2014a, p. 3). As a result, in 2012, North Carolina adopted mCLASS Reading 3D in Grades K-2 to “measure foundational reading skills and Text Reading and Comprehension (TRC), an assessment to measure reading fluency and comprehension” (Bastian & Fortner, 2014, p. 2). According to Bastian and Fortner (2014), the implementation of the assessment signified the state’s awareness of the “relationship between early grades academic performance and later schooling outcomes” (p. 1).

**mCLASS Reading 3D.** mCLASS Reading 3D is a web-based software application that quickly analyzes reading comprehension using a digital running record (Amplify, 2018). The mCLASS Reading 3D assessment tool, TRC, uses authentic fiction and nonfiction literature to measure a student’s understanding about print concepts, maintain language pattern and use picture support, and demonstrate comprehension through oral and written response (Herndon, 2015). “Oral comprehension questions are asked at four increasingly complex levels: literal, inferential, critical, and creative”
As stated by the North Carolina Department of Public Instruction (2015), students answer two open-ended response to text questions that evaluate a student’s recall, use of information, clarification of multiple concepts, and development of personal thought. The “final score is the lowest of the two scores, even if there is a significant discrepancy between the two responses, i.e., one is proficient, the other non-proficient” (North Carolina Department of Public Instruction, 2015, p. 4). Spelling, grammar, sentence structure, and punctuation are not relevant to the score (North Carolina Department of Public Instruction, 2016b).

At the beginning of the year, a teacher may administer the TRC assessment to his/her own students; but at the middle and end of the year, it is recommended that the homeroom teacher not administer the TRC assessment to his/her students, instead another certified staff member should administer the test (North Carolina Department of Public Instruction, 2016b). Third-grade students close to achieving a level P reading level should not be assessed by the teacher of record since a level P score or higher can be used as evidence for grade-level promotion under the Read to Achieve reading proficiency guidelines (Mountain Island Lake Academy, 2015). Outlined in North Carolina House Bill 950,

“Reading proficiency” means reading at or above the third-grade level by the end of a student's third-grade year, demonstrated by the results of the State-approved standardized test of reading comprehension administered to third-grade students and “Reading deficiency” means not reading at the third-grade level by the end of the student's third-grade year, demonstrated by the results of the State-approved standardized test of reading comprehension administered to third-grade students.
Mandatory retention is required of third-grade reading deficient students; however, LEP students categorized as reading deficient are exempt from retention if they have received fewer than 2 years of academic schooling in an ESL program (North Carolina Department of Public Instruction, 2011).

**Second Language Program**

The second language program, commonly known as ESL, began informally in the 17th and 18th centuries, as a mass immigration into the new world brought at least 18 different commonly spoken languages into North America (Hamel, n.d.). With the increase of cultural diversity, multiculturalism and bilingualism were embraced in the educational arena; however, the 20th century brought a shift in attitude towards immigrants (Hamel, n.d.). According to “K-12 ESL” (n.d.), immigrants were required to assimilate and replace their own cultural heritage with a more American one, as students were assimilated into English-speaking environments and mandated to learn the English language. Bilingual education was dismantled and became nonexistent by the 1920s until the rise of Cuban immigrants in Florida brought about the first large scale government sanctioned bilingual program (“K-12 ESL,” n.d.).

In 1968, Coral Way elementary school in Miami-Dade County responded to the educational needs of its immigrant population and became the first bilingual school in Miami-Dade County as well as the trademark for bilingual education (Baker, 2011). Soon after, the Bilingual Education Act of 1968 was passed as the “first official federal recognition of the needs of students with limited English-speaking ability” (Stewner-Manzanares, 1988). According to Goldenberg and Wagner (2015), over the next 30
years, bilingual approaches to educating ELLs advanced and declined with the different presidential administrations.

Under the Reagan administration, bilingual education was perceived as a threat to the American culture and President Reagan publicly declared,

It is absolutely wrong and against the American concept to have a bilingual education program that is now openly, admittedly, dedicated to preserving their native language and never getting them adequate in English so they can go out into the job market. (Baker, 2011, p. 189).

During President Reagan’s administration, mainstreaming, submersion, and transitional programs became the solution for educating ELLs.

**Mainstreaming**

Mainstream means to “place (a child with special educational needs) in regular school classes” (Mainstream, 2017, p. 1). Utilizing this model, classroom teachers are relied on to be the main source of English language development for language minorities; however, in 2011-2012, a survey conducted by the National Center for Education Statistics found that 39% of teachers stated they participated in professional development (PD) of some sort, but only 27% of those surveyed attended PD related to teaching ELLs or LEP students (Rotermund, DeRoche, & Ottem, 2017). In addition, the survey found that PD topics relating to teaching ELLs or LEP students were least chosen for PD (Rotermund et al., 2017). According to Gewertz (2013), a study conducted by EPE Research Center on teacher preparedness to teach Common Core standards, two thirds of the teachers surveyed indicated unpreparedness to teach Common Core standards to ELLs. As a result, ELLs within mainstream classes are being taught by educators who
are ill equipped for the diverse academic needs ELLs bring to the table.

Submersion in mainstream classroom.

Despite increased efforts to better train mainstream teachers to work with ELLs in their classrooms, the assumption is that students will learn English more quickly if they are immersed in the language for 6 hours every day and are forced to use it. (Johnston, 2013, p. 3)

This model is known as submersion: “Language minority students are placed in an ordinary classroom where English is spoken and there is no special program to help them overcome the language problem” (Associated Colleges of the Midwest, 2005, para 3). Reagan and others who opposed bilingual instruction and advocated for monolingual education supported the submersion model. In reaction to the Bilingual Education Act, Senator Ralph Yarborough stated,

> It is not the purpose of the bill to create pockets of different languages throughout the country … not to stamp out the mother tongue, and not to make their mother tongue the dominant language, but just to try to make those children fully literate in English. (Crawford, 1987, para 7)

Yarborough, as well many other Americans, believed that to learn a second language, total immersion is necessary. Allport (2005) coined this way of thinking as an “immersion fetish – the idea that maximum exposure and maximum will are what count in language acquisition” (p. 96).

ESL

In 1974, a revolutionary case, *Lau v. Nichols*, declared that ELLs in an English-speaking classroom are at an academic disadvantage if they are not receiving support in
developing their English language skills which in fact was restricting them from equivalent access to education (Johnston, 2013). Justice Douglas further stated,

Where inability to speak and understand the English language excludes national origin-minority group children from effective participation in the educational program offered by a school district, the district must take affirmative steps to rectify the language deficiency in order to open its instructional program to these students. (U.S. Department of Education, 2015a, p. 6)

Thus, the Lau v. Nichols (1974) case established that the submersion method for ELLs was no longer adequate. In 1975, investigators for the Office of Civil Rights “visited 334 school districts with large numbers of language minority children” (Crawford, 1987, para 36) and discovered they were not following the Lau ruling. As a result, “bilingual education was mandated for all elementary children who spoke little or no English” (Crawford, 1987). Furthermore, it was ruled,

“English as a second language is a necessary component’ of bilingual instruction, the guidelines added, but ‘since an ESL program does not consider the affective or cognitive development of the students … an ESL program [by itself] is not appropriate.” For secondary-school students, the guidelines said, English-only compensatory instruction would usually be permissible. (Crawford, 1987, para 39)

In 1981, President Reagan came into office with the promise to “get government off our backs” (Del Valle, 2003, p. 246) as he and the Secretary of Education at the time felt the mandating of native language instruction by Lau v. Nichols (1974) was an “intrusion on state and local responsibility” (Del Valle, 2003, p. 246).
Reagan championed Fairfax County’s Public School (FCPS) implementation of an ESL model in which foreign born students were not instructed in their mother tongue and used the success of the program to withdraw the requirement of bilingual education (Duke, 2005). The FCPS ESL model provided ELLs with a certified ESL teacher who taught intensive oratorical, auditory, and literacy skills in English dependent on their proficiency level (Duke, 2005). According to Duke (2005), grade-level and school placement decisions were based on language skill assessments of ELLs. The FCPS ESL model was used nationally to educate language minorities until Thomas and Collier’s research findings highlighted it took “Fairfax ESL students four to nine years to reach grade level on standardized tests in reading and other subjects” (Crawford, 1988, para. 1). Thomas and Collier’s study also indicated ELLs receiving at least 2 years or more of education in their mother tongue might acquire academic ELP more rapidly (Crawford, 1988). Fast forwarding to today’s mainstream classrooms, ESL programs look very different than the FCPS model but are still very widely used with ELLs.

In today’s educational system, ESL models are not separate entities but implemented in conjunction with the regular education curriculum. The ESL model is used in K-12 to ensure LEP students are provided an equal and quality education through the receiving of the support essential to them obtaining English proficiency (Smith, 2016). According to Smith (2016), ELLs are taught English literacy skills integrated with academic content with little usage of the student’s mother tongue during instruction. As a result, students from various backgrounds and dialects can be instructed at the same time. The ESL model looks different in various educational settings.

Push-in strategy. In the elementary setting, most ESL models are either pull out
and/or push in. The push-in strategy is when the “ESL teacher comes into the general education classroom and assists the ELLs” (McMahon, 2013, para 2). School systems utilize the push-in strategy to work towards increasing the gains in L2 academic language proficiency and the core content curriculum. Recent research has attributed an increase in diversity of instructional styles and greater student engagement and student participation to the benefits of co-teaching (St. Cloud University, n.d.). Almon and Feng (2012) researched the effects of co-teaching versus solo-teaching in a fourth-grade urban elementary schoolroom and found co-teaching to be more effective in students learning number sense. Simultaneously, the data also showed that both teaching methods were mutually beneficial to student mathematics achievements. Looking specifically at the ELL population and the effects of co-teaching, Pappamihiel’s (2012) research led to the conclusion that “mainstream teachers learn more about ESL methodologies and strategies and that ESL teachers are able to help ELs take advantage of mainstream instruction” (p. 12), concluding that the collaborative teaching method is more successful than the traditional “pull out” method for meeting the needs of ELL students. (Naegele, Ralston, & Smith, 2016, p. 9).

**Pull-out strategy.** The pull-out strategy is when ELLs spend a “majority of their day in the mainstream classroom and are pulled out for a portion of each day to receive instruction in English as a second language” (Rennie, 1993, para. 4) from a certified ESL teacher. According to Pappamihiel’s (2012) research, primary ESL teachers favor the pull-out strategy in comparison to the push-in strategy because it allows them to provide more linguistic support, vocabulary development, and syntax and eliminates power issues that stem from co-teaching. In the middle and high school classrooms, ELLs receive ESL
instruction with other ELLs during a class period and receive course credit (Rennie, 1993).

No matter the educational setting or strategy utilized, the ESL “goal is for every LEP student to reach grade-level proficiency in listening, speaking, reading, and writing as measured by the ACCESS (state-adopted English proficiency test)” (Smith, 2016, para. 2); however, Anderer’s (2017) research found ESL programs’ long-term academic benefits for ELLs rated below other forms of English language instruction. Despite their below average effectiveness, ESL programs are widely used in American public schools because of their cost effectiveness and ability to provide instruction to a variety of ELLs at one time (Anderer, 2017).

**Transitional Programs**

Transitional bilingual education (TBE) programs are the least used to educate ELLs in American public schools despite research that reflects greater long-term academic success of ELLs within TBE in comparison to ESL programs (Palmer, 2011). TBE is an educational theory that states that “children can most easily acquire fluency in a second language by first acquiring fluency in their native language” (UK Essays, 2015, para. 2). UK Essays (2015) defined fluency as “linguistic fluency (e.g. speaking) as well as literacy (e.g. reading and writing)” (para. 2). The TBE model serves as a catalyst for ELLs to transition from their native language to English in 3 years as academic content is taught in native language and elective classes in English to encourage language and social development (Roberts, 1995).

According to Palmer (2011), to gain and maintain national and mainstream support, the backers of the Bilingual Education Act of 1968 argued for bilingual support
in the form of TBE. The push for TBE also came on the heels of several studies that found “children transfer a variety of component skills from their first language to their second, including phonological awareness, word reading, word knowledge, and comprehension strategies” (August, 2002, p. 8). L1/L2 language proficiency equating to academic success is rooted in Cummins’s (1979) LIH and threshold hypothesis, Clarke’s (1979) linguistic threshold hypothesis (LTH) and Alderson’s (1984) threshold theory.

**Developing Reading Proficiency of SLLs**

**Reading fluency.** Throughout history, researchers have been trying to figure out how to surge the reading aptitude of ELLs in L2. Reading fluency, which once only focused on word recognition, now is understood to encompass accuracy, automaticity, and prosody (Penner-Wigler, 2008).

**Accuracy.** Accuracy of decoding refers to the ability to correctly generate a phonological representation of each word, either because it is part of the reader’s sight-word vocabulary or by use of a more effortful decoding strategy such as sounding out the word. (Penner-Wigler, 2008, p. 2). Education Place (n.d.) defined accuracy as the freedom from word identification problems and the prerequisite of comprehending a text. Accurate decoding helps a reader to build automaticity – “the ability to quickly recognize words automatically, with little cognitive effort or attention” (Penner-Wigler, 2008, p. 2).

**Automaticity.** Automaticity allows cognitive resources to be devoted to comprehending the story/passage and concentrating on the connectedness of the text (Hudson, 2008). Hudson (2008) broke automaticity down into three levels: letter level, word level, and text level. Letter level automaticity indicates that the reader can identify letter sounds quickly and effortlessly. Word level automaticity encompasses rapid and
unproblematic word identification and decoding. Lastly, text level automaticity means the reader is reading at a fluid pace and is able to develop prosody.

**Prosody.** “Prosody of oral text reading refers to naturalness of reading, or the ability to read with proper phrasing and expression, imbuing text with suitable volume, stress, pitch and intonation” (Penner-Wigler, 2008, p. 3). Studies have concluded that oral reading prosody is a strong predictor of reading achievement. Miller and Schwanenflugel (as cited in De Ley, 2017), found “early acquisition of an adult-like intonation contour predicted better comprehension” (para. 3), after conducting a study analyzing the correlation between a student’s reading prosody in primary grades with their end of third-grade reading comprehension proficiency. Ultimately, it is essential that accuracy, automaticity, and prosody are linked to accomplish the goal of reading proficiency; however, in relation to ELLs, the question remains whether these three fundamental reading components should be developed in L1, L2, or both working simultaneously.

**Threshold Hypothesis**

Cummins’s (2000) threshold hypothesis states that “continued academic development of both languages conferred cognitive/linguistic benefits whereas less well-developed academic proficiency in both languages limited children’s ability to benefit cognitively and academically from interaction with their environment through those languages (e.g. in school)” (p. 175). Simply put, an ELL’s academic language ability in the language of instruction (a) determines whether he/she will be academically less vulnerable in English submersion programs and (b) equates to positive or negative educational and cognitive outcomes (Cummins, 2000). As seen in Figure 1, low levels of
language proficiency in L1 and L2 are hypothesized to have undesirable cognitive effects.

![Cognitive Effects of Different Types of Bilingualism]

According to Cummins (1976), the lower elementary grades do not have to depend on cognitive competence and, as a result, an ELL with a lower threshold can navigate the small amount of listening comprehension and expressive skills required; however, once an ELL with lower threshold enters the upper primary grades, the curriculum content “requires more abstract formal operational thought process” (Cummins, 1979, p. 22) in reading comprehension skills. Many ELLs do not have the cognitive competence to be successful with this level. As seen in Figure 1, once an ELL masters one language, he/she moves past the lower threshold into a middle ground in which neither positive nor negative cognitive effects are applicable. Finally, positive
cognitive effects are attributed to an ELL reaching academic linguistic expertise in first and second language. Ardasheva, Tretter, and Kinny (2012) tested Cummins’s (1976) threshold theory on middle school students and found his theory to be accurate in relation to proficiency in academic language decreasing academic disadvantages.

**LTH**

Clarke’s (1979) short-circuit hypothesis is interchangeably known as the LTH and is very similar to Cummins’s (1976) threshold theory. It theorizes that “language competence ceiling effectively prohibits the complete transfer of first language (L1) reading skills to the second language (L2)” (Clarke, 1979, p. 121), thus the “limited command of language produces a ‘short circuit’ effect on good readers forcing them to revert to poor reading strategies” (Clarke, 1979, p. 121). According to Cummins (2000), “direct transfer of L1 reading skills occurs when a certain amount of L2 knowledge has been acquired” (p.196).

Jiang’s (2011) literature review found,

The main assumption of linguistic threshold hypothesis or linguistic ceiling is that readers will need to develop a certain level of language proficiency in the target language before they can transfer L1 reading skills or strategies to improve L2 reading comprehension. Before this threshold level of language proficiency or linguistic ceiling is reached, whether or not they read well in their L1 does not make much difference in their L2 reading performance. (p.178)

However, a child can only attain the threshold level in their second language if they have first developed their mother tongue before being exposed to a foreign language learning environment (Cummins, 1976).
LIH

Cummins’s (2000) LIH postulated that “academic language proficiency transfers across languages such that students who have developed literacy in their L1 will tend to make stronger progress in acquiring literacy in L2” (p. 174). The LIH nullified the time on task theory that suggests total immersion in a mainstream classroom attributes to effective second language acquisition (James, 1998). Cummins (1992) found that ELLs in bilingual education programs that offered substantial academic first language instruction and then gradually decreased first language and increased academic English instruction, allowed ELLs to continue cognitive development laying the groundwork for academic achievement in the second language. Briefly stated, Cummins believed that cognition is required and can be developed in all languages but first must be established in native language before children can perform cognitively challenging tasks (Bilash, 2009). This common underlying proficiency (CUP), as he calls these capabilities and understandings to learn academic content, conceptually think, and problem solve, is illustrated in Figure 2.
Cummins (1979) used the iceberg metaphor to describe CUP to illustrate that first 
(L1) and second language (L2) are perceptibly unrelated in outward conversations; 
however, under the surface, L1 and L2 are merged by them operating through the same 
central processing system. Thus, it is hypothesized that any growth that occurs in one 
language will have an advantageous effect on the other language(s).

**Cummins (1979)** used the iceberg metaphor to explain first and second 
language are visibly different, but under the surface they are fused together.

**Threshold Theory**

Contrary to Cummins’s (1979) LIH theory, Alderson’s (1984) threshold theory 
asserted that second language proficiency, not first language, determines whether an ELL 
will become a proficient reader. Alderson’s threshold of L2 knowledge theory states that 
when an individual has a fundamental amount of L2 lexical and grammatical knowledge, 
their reading skills can function adeptly (Laufer & Ravenhorst-Kalvoski, 2010). “Lexical 
coverage, sight vocabulary and ‘adequate’ comprehension” (p. 16) are related factors of
lexical threshold (Laufer & Ravenhorst-Kalovski, 2010).

The proportion of recognized words in each text is referred to as lexical coverage (Adolphs & Schmitt, 2003). Zeeland and Schmitt (2012) postulated, “lexical coverage is an essential measure, for it allows the calculation of estimates of the vocabulary size necessary for comprehension of written and spoken texts” (p. 457). Coxhead (2000) created the Academic Word List (AWL) of English language words appearing in high frequency in academic texts; 3,000 words total broken into 570-word families. In summary, if 10% of an academic text consist of words from AWL, then knowing AWL will ensure a reader will comprehend at least 10% of the text.

Sight vocabulary refers to “words whose meaning is so familiar to a person that they can be understood out of context and decoded quickly without any cognitive effort” (Laufer & Ravenhorst-Kalovski, 2010, p. 16). Shanker and Cockrum (2010) stated that individuals are hindered in their reading when they do not know enough sight words because they must decode more words than a typical reader. According to Laufer and Ravenhorst-Kalovski (2010), expansive sight word knowledge frees cognitive effort and contributes to effortless reading which in turn allows for greater comprehension of a story/passage.

A predecessor of Alderson’s (1984) threshold theory is Clarke’s (1979) short-circuit hypothesis that posits proficiency in L2 must be achieved before an ELL reader can comprehend L2 text thus causing the reader to short circuit in their reading process until proficiency is reached (Lems, Miller, & Soro, 2017). Laufer (1992) stated it is imperative to determine

the number of words the reader must possess in his lexicon to be able to read in
L2, namely the number of words constituting the threshold vocabulary which will ensure the transfer of reading skills from L1 to the L2. (p. 127)

**Vocabulary Knowledge Effect on Reading Comprehension**

The National Reading Panel (NICHD, 2000) acknowledged reading proficiency is directly related to an individual’s vocabulary knowledge. In fact, Weiser’s (2013) research highlights the massive benefits of vocabulary instruction on listening and speaking vocabulary which in turn increases reading comprehension. According to Anjomshoa and Mostafa (2014), “vocabulary knowledge and its role in reading comprehension has been one of the main areas of focus in second language research for the last twenty years” (p. 90). Based on their research findings Carlisle, Beeman, Davis, and Spharim (as cited in Anjomshoa & Mostafa, 2014) proposed that ELLs of Latina/o descent receive L2 vocabulary instruction to increase their L2 reading comprehension. Laufer (1997) posited, “no text comprehension is possible, either in one’s native language or in a foreign language, without understanding the text’s vocabulary” (p. 20). The strong relationship between reading comprehension and vocabulary knowledge has been affirmed by several studies.

Guo (2008) conducted a study on 155 English speaking undergraduate and graduate students resulting in a compelling positive connection between vocabulary understanding, syntactic awareness, and reading comprehension. In addition, Shiotsu and Weir (2007) found similar results of a positive correlation between the two variables and reading comprehension after investigating vocabulary knowledge and reading proficiency of ELLs in Japan. Anjomshoa and Mostafa’s (2014) findings after studying students learning English in Kerman acknowledged the fact that an individual’s vocabulary
mastery is a predicting determinate of one’s reading understanding. According to Melby-Lervag and Lervag (2014), language comprehension skills of ELLs are often limited by the rate in which they must acquire second language vocabulary to keep up with their non-ELL peers. Coady (as cited in Huang, 1999) identified the connection between vocabulary and reading comprehension is that, “in the reading process, L2 learners in the early stage apply more concrete strategies—grapheme phoneme, grapheme-morphophoneme, and syllable-morpheme—while proficient L2 learners depend more upon abstract strategies: syntax, lexical meaning, and contextual meaning” (p. 71).

**Mother Tongue on Comprehension**

Early second language acquisition research attributed mother tongue as the primary interference with second language acquisition. Mother tongue is described as a “native language, home language, minority language, first language (L1), best language, primary language, and heritage language” (Ohyama, 2018, p. 7). Contrarily, research to date suggests developing the mother tongue of an individual strengthens second language acquisition because language and cognition of the second language builds on the foundation already established by the mother tongue (Cummins 1999, 2000; Thomas & Collier, 2002). Furthermore, Droop and Verhoeven (1998) found that difficulties in second language acquisition can be attributed to “difficulties learners have in grasping the linguistic patterns of the target language and in using (meta)linguistic cues in reading” (p. 193). Gordishevsky and Slabodar (2015) noted the importance in recognizing that languages have many similarities and differences. A notable divergence between languages are false cognates: “pairs of words in two languages (or in two dialects of the same language) that look and/or sound the same but have different meanings” (Nordquist,
2017, para 1). “Language comprehension relies on the ability to correctly process word and phrase meanings, sentence grammar, and discourse or text structure of written and spoken language” (Encyclopedia, 2002, para. 1). According to Gordishevsky and Slabodar (2015), teaching ELLs word and sentence level reading strategies in their L1 gives them the ability to compare the two languages and gain a deeper comprehension of L2.

Therefore, it can be concluded that mother tongue does not hinder reading comprehension but the deficiency of vocabulary in L2. A reader cannot understand or comprehend a text in which they do not know what the words mean (“Vocabulary,” 2016). Benson’s (2004) research on mother tongue and bilingual education concludes that bilingual education models such as the gradual transitional and developmental maintenance model provide the best opportunities for ELLs to develop their first language and thus increasing their second language acquisition and academic proficiency in L2.

**Bilingual Education: Current Educational Reform**

With the rapid ELL population growth in the U.S. and the accountability measures set forth by NCLB, the educational system is confronted with addressing the English oral language and reading comprehension deficiencies of ELLs. North Carolina is tackling these issues with the prevalence of the new educational reform of dual-language schools. According to U.S. census data, North Carolina experienced a dramatic demographic shift from 2000 to 2010, as the Hispanic population “increased by 111%” (Trippett, 2014, para. 4). The area is projected to experience even more growth from the Hispanic population by 2020, as net migration and natural increase will likely increase
the subgroup beyond one million (Trippett, 2014).

With the surge of language minorities in the United States, Cummins’s (2000) work cautioned the world from the early exiting of ELLs from bilingual to English-only mainstream classroom settings based on data highlighting the huge discrepancy between L2 language acquisition and grade-level specific academic L2 achievement. In addition, Cummins’s (2002) data showed that at least 7 years of second language experience was essential for a language minority to achieve English-based, grade-level specific objectives.

Thereafter, several studies corroborated Cummins’s (1979) findings, but there also were many studies that have differed on bilingual models’ effect on ELLs academic achievement. “Central to the evaluation of any educational program are the instruments and procedures used to assess that program’s effects” (Navarette, Wilde, Nelson, Martinez, & Hargett, 1990, p. 1). Navarette et al. (1990) further described,

Standardized tests are designed to provide the best match possible to what is perceived to be the “typical” curriculum at a specific grade level. Because a bilingual education program is built on objectives unique to the needs of its students, many of the items on a standardized test may not measure the objectives or content of that program. Thus, a standardized test may have low content validity for specific bilingual education programs. (p. 1)

From the beginning of bilingual education to present day, outcomes from studies reviewing the efficacy of bilingual programs have been questioned because of their failure to consider the variations in each program (Roberts, 1995). In 1977, the controversial AIR report concluded that students in bilingual programs were not
outperforming their counterparts in non-bilingual programs (Brisk, 2006), thus
generalizations were made on all bilingual programs without considering the “variables
of the study; program type, the students, and/or social context” (Brisk, 2006, p. 5).
According to Roberts (1995), bilingual programs are so diverse with the “number of
students served, languages spoken, grades and ages involved, number of teachers, their
specializations and languages, subject matter taught, hours in program, and so on” (p.
370) that generalizations made within research studies cannot be applied to all bilingual
programs; however, to eliminate confounding variables and strengthen the research on
bilingual programs, in 2002, Thomas and Collier conducted a large-scale study that
included students in different educational models, investigated their backgrounds and
district contexts, studied their performance on district-mandated assessments, and
analyzed personal interviews and classroom observations (Brisk, 2006).

Thomas and Collier’s (2002) research emphasized 4-7 years of bilingual
education in a school environment that is sociocultural supportive and allows native and
second language to flourish enables ELLs to outperform monolingually schooled
students. In addition, Thomas and Collier (2002) highlighted the differences in bilingual
models negatively and/or positively impact ELLs academic achievement, but those that
honed in on the linguistic, cultural, socioemotional, and developmental academic needs of
ELLs have the greatest impact. According to Brisk (1999), each bilingual program sets
goals which drive the amount of target language development that is expected by each
student to classify the program as a success (Brisk, 1999). To simplify success and make
it universally understandable the U.S. educational system has inadvertently defined
success by a student’s performance on a standardized assessment; however as stated
earlier, a “standardized test may have low content validity for specific bilingual education programs” (Navarette et al., 1990, p. 1). Thus, for this study, the standardized tests that were chosen are ELL specific and/or reliable measures for the ELL age group being studied.

Opponents of bilingual education posit that with the initial lag in student proficiency, an evaluative method to determine if dual-language schools are meeting more than students’ language needs is questionable (Goldenberg, 2008). With the implementation of student accountability measures for all schools, numerous studies have concluded that for students to meet their grade specific literacy proficiency goals, it is necessary that quality instruction and teachers trained to support the diverse needs of students be present; therefore, meeting the language needs of ELLs is necessary, but just as traditional classrooms receive native English-speaking students who have varying levels of conversational and academic language proficiency, it is also the case with ELLs entering bilingual programs.

Cummins (1999) clarified the difference between basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP) by giving the example of two monolingual English-speaking sisters who are 12 and 6 years old. Despite their age difference, both sisters can understand and use language effectively in their social context (BICS); but vast disparities exist in their reading skills, writing, and ability to comprehend vocabulary in English (CALP), thus demonstrating the difference between BICS and CALP (Cummins, 1999). Traditional classroom settings, with the mandates of *Plessey v. Ferguson* (1896), *Brown v. The Board of Education of Topeka* (1954), Richard B. Russell National School Lunch Act (1946), ESEA (1965),
Bilingual Education Act (1968), Equal Educational Opportunities Act (EEOA, 1974), NCLB, and Individuals with Disabilities Education Act (IDEA, 2004), have equipped educators with skills they need to teach students with varying academic abilities and instructional needs ("10 Most Important," 2012); however, with the rise of ELLs within the U.S. educational system, research in relation to instructing ELLs at various BICS and CALP levels in L2 and their L1 is still in the embryonic stage.

Furthermore, the universalness of current bilingual education is still evolving as majority of programs cater to ELLs of Spanish dialect. According to the American Community Survey conducted in 2015, there were at least “350 languages spoken in U.S. Homes” (U.S. Census Bureau, 2015, para. 1), thus alluding to the fact that ELLs who speak a language other than Spanish are not receiving native tongue instruction despite the fact Cummins’s (1979) research indicates native language instruction is key to L2 proficiency and academic achievement. Opponents of bilingual education programs use the fact that not all ELLs are being instructed in their native language as a strong argument to question the academic effectiveness of bilingual programs.

Advocates of traditional classroom settings concur with Rossell’s (2002) research that specifically designed programs for ELLs will not eliminate ELLs’ initial disadvantage of English proficiency; instead, best practices being implemented within the classroom can accelerate oral language acquisition (Tong, Lara-Alecio, Irby, Mathes, & Kwok, 2008) and increase academic proficiency. Traditional classroom setting, commonly known as English only and/or English immersion, advocates ground their assertions in Gardner’s (2011) Multiple Intelligence (MI) theory.

Gardner’s (2011) MI theory proposed that “all human beings possess 8 or 9
intelligences, no two people possess the exact same profile of intelligence” (p. 6); and based on one’s intelligence profile, an individual will approach a topic in a certain way. In relation to MI and education, Gardner stated,

An educator convinced of the relevance of MI theory should individualize and pluralize. By individualizing, I mean that the educator should know as much as possible about the intelligences profile of each student for whom he has responsibility; and, to the extent possible, the educator should teach and assess in ways that bring out that child’s capacities. By pluralizing, I mean that the educator should decide on which topics, concepts, or ideas are of greatest importance, and should then present them in a variety of ways. Pluralization achieves two important goals: when a topic is taught in multiple ways, one reaches more students. Additionally, the multiple modes of delivery convey what it means to understand something well. When one has a thorough understanding of a topic, one can typically think of it in several ways, thereby making use of one’s multiple intelligences. Conversely, if one is restricted to a single mode of conceptualization and presentation, one’s own understanding (whether teacher or student) is likely to be tenuous. (p. xvi)

Based on Gardner’s (2011) MI theory, quality instruction trumps language inadequacies. According to Haynes and Zacarian (2010), academic achievement is increased when language minorities are taught utilizing visual and kinesthetic methods in their primary years. Jayalakshmi (2011) suggested that through the vehicle of multiple intelligences, an ELL can learn the fundamentals of communication in English. Entering the traditional classroom, ELLs may not be ready for the standardized assessments
students are required to take that necessitate linguistic intelligence in English, but they can learn the content if teachers adapt the lessons to meet their needs.

Creating an ELL friendly learning environment is key to an ELL’s academic success; however, based on Cummins’s (1979) LIH and Gardner’s (2011) MI theory, more research is needed to ascertain the level of literacy proficiency of ELLs only receiving instruction in the key components of reading, identified by the National Reading Panel (NICHD, 2000) as phonemic awareness, phonics, fluency, vocabulary, and text comprehension, which is provided by the traditional and full immersion classroom, versus ELLs receiving instruction in the key components, oral language development, and native language instruction.
Chapter 3: Methodology

Introduction

This chapter concentrates on the research design for this study and the methods that were utilized to collect and analyze the obtained data. The research design, target population, selection of participants, instrumentation, limitations, and delimitations are discussed in detail. Additionally, the chapter includes the reliability, validity, and bias of the methodology.

This study investigated the impact of traditional, dual-language, and full immersion settings on third-grade ELLs’ proficiency in literacy as measured by third-grade reading EOG grade-level proficiency data and close- and open-ended survey responses. More specifically, the study focused on investigating the level of literacy proficiency achieved by ELLs only receiving academic teaching in the essential components of literacy provided by the traditional and full immersion classroom versus ELLs receiving native language instruction, oral language development, and instruction in the key components of reading. To accomplish this task, the following research questions were examined:

1. What difference exists in literacy proficiency of third-grade ELLs in the Spanish two-way immersion, full immersion, and traditional classroom as measured by third-grade reading EOG assessment scores?

2. What are the perceptions of North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency?

The researcher looked specifically at schools in North Carolina. In 2011, throughout the state of North Carolina, 51 schools’ academic content was taught in a
foreign language for at least 50% of the school day (Thomas & Collier, 2012). Program models “mainly for native English speakers were labeled ‘immersion’” (p. 66) and program models for “ELLs and native English speakers were coined ‘two-way dual language’” (Thomas & Collier, 2012, p. 66). Multiple studies have shown that ELLs’ vocabulary knowledge rapidly increases when there is proficiency in the native language, translating to an increase in their reading comprehension proficiency (Guo, 2008; Shiotsu & Weir, 2007). Despite some of the known successes of two-way dual-language schools, North Carolina, along with other states, has been slow to create more dual-language schools to address its growing ELL population.

Lack of funding, lack of qualified teachers, and a lack of an abundance of research to substantiate the effectiveness of bilingual programs have all slowed the adoption of more bilingual schools. Furthermore, the rise in non-ELL families desiring for their child(ren) to attend bilingual schools has also limited ELLs’ abilities to attend dual-language schools. Many ELLs in the U.S. find themselves in the same position as the ELLs in the District of Columbia Public Schools (DCPS) where only 25% of the population within the six dual-language schools is represented by ELL students and “only 24 percent of English learners in DCPS attend dual-language programs” (Mathewson, 2017, para. 5). Unable to meet the supply and demand of bilingual instruction for ELLs, school districts are still required to provide equitable education for ELLs.

In 2008, the North Carolina Department of Public Instruction hired Thomas and Collier to conduct a 3-year study on its dual-language schools to determine their effectiveness on closing the achievement gap. The study analyzed math and reading EOG test data to find that there was a decrease in the academic achievement gap between
ELLs attending North Carolina bilingual programs and their non-ELL peers attending the same program (Thomas & Collier, 2009). Though impactful, the study left out the missing variable of comparing bilingual program effectiveness to traditional school effectiveness in reading aptitude.

Thus, this study used third-grade reading EOG scores to measure the impact of educational models on ELLs reading proficiency. In laymen’s terms, this study identified the educational model that is teaching ELLs to be literate. Comparing the achievement of ELLs’ reading proficiency among three different educational models, this study probed the connection of implementing the key components of reading through instruction in English only, native and English language, versus target and English language instruction on English reading comprehension. To investigate the research questions, the researcher collected data from all North Carolina public schools with 3 years of third-grade ELL reading EOG data and obtained survey data from North Carolina EL coordinators.

**Research Design and Rationale**

The researcher conducted a comparative case study analysis on whether educational models during literacy instruction (independent variables) relate to third-grade ELLs’ proficiency in literacy (dependent variables) as measured by reading EOG third-grade specific benchmark scores.

**Quantitative phase one.** In the first phase of the study, the researcher collected third-grade reading EOG benchmark data spanning 3 school years (2015-2018) from each two-way and full immersion public school setting in North Carolina. Collecting the EOG data over a 3-year time span ensured the data provided by the assessment was an accurate representation of the educational model’s impact on ELLs’ literacy proficiency (Hobbs,
2016). In North Carolina, a third grader’s reading score is considered proficient and on grade level if a score of level 3 or higher on the reading EOG assessment is obtained.

Upon gathering the EOG data, the researcher found the mean of the North Carolina School Report Card scores from each school over the 3 years. For the purposes of this study, the North Carolina School Report Card scores were converted to a 6.0 scale, as seen in Table 4.

Table 4


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<tr>
<th>Performance Level</th>
<th>Converted Score</th>
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<td>F</td>
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<td>E</td>
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<td>B</td>
<td>5.0</td>
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<td>A</td>
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On December 10, 2015, President Obama signed into law Every Student Succeeds Act (ESSA) which reauthorized the Elementary and Secondary Education Act of 1965 (ESEA), “the nation’s national education law and longstanding commitment to equal opportunity for all students” (North Carolina Department of Public Instruction, n.d., para. 1). As a result, changes were made to North Carolina’s accountability measurements for the 2017-2018 school year as seen in Table 5.
Table 5


<table>
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<th>Performance Level</th>
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<td>A+NG</td>
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To align with the requirements of ESSA, the new performance level scores include a calculation of English language acquisition growth made by ELLs (North Carolina Department of Public Instruction, n.d.). The unweighted 6.0 scale was used so every performance level had an equal weight when analyzing the data. Utilizing the school report card data, the researcher identified the average performance level of two-way and full immersion schools. The mean for each school per school year was expressed as

\[ AM = \frac{1}{n} \sum_{i=1}^{n} a_i = (a_1 + a_2 + \cdots + a_n) \]

Afterwards, the researcher averaged the mean scores from each school year to obtain the mean proficiency school report card score of two-way immersion schools. Then, the mean proficiency for full immersion schools was determined. The mean for each educational model performance level at each school was expressed as

\[ X \text{ performance level for } Z \text{ school} = \frac{Y_1 + Y_2 + Y_3}{n} \]

Utilizing the multiyear data to determine the performance level per school year and then per school setting ensured more reliable results on the average North Carolina School
Report Card score for each educational model. Thus, when pulling traditional school data, the researcher only pulled third-grade ELL reading EOG data from schools that had a comparable North Carolina school report card score over the 3 years.

**Quantitative phase two.** In the second phase of the study, the researcher measured each educational model’s impact by analyzing the yearly reading EOG data using a mixed ANOVA. A mixed ANOVA was used to find out if there was an interaction between within-subjects factor (time point) and between subject’s factor (educational model) on the dependent variable (literacy proficiency; Laerd Statistics, 2018). It allowed the researcher to see if the growth from year to year was significant, how the change looked across different educational models, and which educational model impacted the ELLs’ literacy proficiency the most.

**Quantitative phase three.** In the last quantitative phase of the study, the researcher sent out an email to all North Carolina EL coordinators (Appendix A) inviting them to participate in the close-ended electronic survey (Appendix B). Before participating in the survey, each participant was presented the nondisclosure agreement (Appendix C) to consent to electronically. The survey followed the Likert scale format, so attitudes and perspectives were “measured with a greater degree of nuance than a simple ‘yes/no’ question” (SurveyMonkey, 2018, para. 2). The researcher gave the North Carolina EL coordinators a 2-week window to complete the survey.

**Qualitative phase.** The last phase of the study was qualitative. The survey asked the North Carolina EL coordinators to respond to three open-ended items. The responses were coded in relation to characteristics employed in the two-way immersion, full immersion, or traditional educational model.
Appropriateness of Design

The researcher chose a comparative case study analysis to conduct this research because of its ability to answer how and why questions using “similarities and differences to support or refute propositions as to why an intervention succeeds or fails” (Goodrick, 2014, p. 1). In addition, a comparative case study analysis was chosen because of its reliance on a mixed method approach to examine “the extent to which the intervention caused the results, particularly outcomes and impacts” (Goodrick, 2014, p.1). Utilizing the mixed methods design allowed the researcher to triangulate findings so they could be mutually corroborated (Sage Publications, n.d.).

To conduct the mixed methods study, the researcher used data from summative assessments as well as collected North Carolina EL coordinator perceptions of each educational models’ impact through open- and close-ended survey items. The electronic survey was designed by the REL Northeast and Islands at Education Development Center in partnership with the ELLs Alliance and was originally designed to obtain data on the education of ELL students from the insight of principals (Grady & Dwyer, 2014). For the purposes of this study, the researcher modified with permission, as shown in Appendix D, the survey tool so it catered to EL coordinators. The modified close-ended survey used in this study provided higher test score reliability and was easily interpreted to reflect what the respondent wanted to convey about the given topic (Zohrabi, 2013).

To gain a deeper understanding of the quantitative data, which only tells the “what” or “how much,” the researcher enabled the North Carolina EL coordinators to respond to open-ended survey questions to obtain the “why” and “how.” The open-ended questions enabled the researcher to gather each EL coordinator’s knowledge and beliefs
on best practices for educating ELLs.

The researcher used a priori codes when analyzing the data. The codes reflected the implementation of the five essential components of reading instruction as well as evident characteristics of a specific educational model. The coding for the five essential components was based on several studies that found the explicit and systematic implementation of the five components of reading instruction build both reading and English language skills of ELLs (August & Shanahan, 2006; Linan-Thompson & Vaughn, 2007). Analysis of the open-ended responses allowed the researcher to determine the level of consensus on best educational environments for ELLs.

**Setting and Participants**

The study was conducted at all public elementary schools in North Carolina with 3 years (2015-2016, 2016-2017, 2017-2018) of third-grade ELL reading EOG grade-level proficient data. The study focused on third-grade language minorities, specifically those identified as LEP. The participants attended schools determined to be either traditional elementary, Spanish two-way immersion, or a full immersion, where the target languages were German, French, Chinese, and Japanese.

**Instrumentation**

The instruments, as seen in Table 6, used to collect data were summative assessments and survey data.
### Alignment Table

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Tools/Instruments</th>
<th>Data Collected</th>
<th>Method of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>What difference exists in literacy proficiency of third-grade ELLs in the</td>
<td>Reading EOG</td>
<td>2015-2018 EOY cut scores from each educational model in NC</td>
<td>Mixed ANOVA</td>
</tr>
<tr>
<td>Spanish two-way immersion, full immersion, and traditional classroom as measured</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by third-grade reading EOG assessment scores?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are the perceptions of North Carolina EL coordinators on best practices for</td>
<td>Electronic Survey</td>
<td>ELL coordinator knowledge and beliefs on best practices and classroom environment most conducive</td>
<td>One Way Tables/Indicators/ Coding</td>
</tr>
<tr>
<td>increasing ELLs’ literacy proficiency?</td>
<td></td>
<td>for ELLs to academically excel</td>
<td></td>
</tr>
</tbody>
</table>

According to Zohrabi (2013), the use of quantitative and qualitative instruments (survey and assessments) for collecting data “through different sources (learners, teachers, program staff, etc.) can augment the validity and reliability of the data and their interpretation” (p. 254).

### Ethical Considerations

The study presented minimal risk to participants and ensured that the participants fully understood the nature of the study and the fact that participation was voluntary. A statement was made that confidentiality of recovered data would be maintained always and identification of participants would not be available during or after the study.
Summary

In this chapter, the researcher presented the methodology for the study. The researcher first identified the purpose of the study was to identify the educational model that is having the greatest impact on increasing the literacy proficiency of third-grade ELLs. Thus, the researcher investigated the impact of traditional, dual-language, and full immersion settings on third-grade ELLs’ proficiency in literacy utilizing a mixed methods research design. The collection and analysis of data occurred in three quantitative and one qualitative phase. Included within this chapter was a thorough explanation of the type of data collection approaches that were utilized. The data obtained consisted of third-grade ELL reading EOG grade-level proficiency data and survey data from North Carolina EL coordinators. Within this chapter, a thorough explanation of the rationale and appropriateness of this mixed methods research design was presented with detailed information on the sites, participants, and specific procedures taken to ensure reliability and validity. It was the hope of the researcher that this study would identify elements used within an educational setting that would aid in closing the academic achievement gap of ELLs.
Chapter 4: Results

Background

The purpose of this mixed methods study was to determine if significant differences existed in EOG reading scores relative to three different instructional approaches on third-grade ELLs during literacy instruction in public elementary schools in North Carolina: traditional, Spanish two-way immersion, and Spanish full immersion. A secondary purpose of the study was to determine what perceptions existed with North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency. Results from the study highlight the instructional model most conducive for an ELL to be academically successful in reading. Also, the study provided the necessary tools to replicate similar district-wide initiatives.

The following research questions guided this study:

1. What difference exists in literacy proficiency of third-grade ELLs in the Spanish two-way immersion, full immersion, and traditional classroom as measured by third-grade reading EOG assessment scores?

2. What are the perceptions of North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency?

Chapter 4 is organized by a discussion of the data preparation, descriptive statistics, data screening, research questions, and a summary of the results. Quantitative data were analyzed with SPSS for Windows. Qualitative data were analyzed and coded using SurveyMonkey® text analysis. The next sections provide a discussion of the data preparation.
Data Preparation

Data were obtained from two different sources: third-grade ELL EOG reading grade-level proficiency scores from each school site and EL coordinators’ perception scale scores from each school district obtained through SurveyMonkey®, a web-based data collection tool. Both descriptive data and open-ended response data were collected. The instrument transferred to SurveyMonkey® assessed EL coordinators’ knowledge and beliefs on best practices for ELLs and classroom support for ELLs. The first research question was answered with the third-grade ELL EOG reading grade-level proficiency scores. The data were input into an Excel spreadsheet and subsequently imported into SPSS for analysis. The second research question was answered with the survey administered online through SurveyMonkey®. The quantitative data were exported directly from SurveyMonkey® to SPSS for analysis, thus there were two separate SPSS data sets. The qualitative data from SurveyMonkey® was input into an Excel spreadsheet.

The researcher began with a priori codes when analyzing the qualitative data. The codes reflected the implementation of the five essential components of reading instruction as well as evident characteristics of a specific educational model; however, analysis of the EL coordinators’ answers to the survey questions, as seen in Table 7, showed that none of the responses displayed the themes.
Table 7

5 Essential Components of Reading: Number of Coded Responses per Theme

<table>
<thead>
<tr>
<th>Open-ended Survey Questions</th>
<th>Phonemic Awareness</th>
<th>Phonics</th>
<th>Vocabulary Development</th>
<th>Reading Fluency</th>
<th>Reading Comprehension Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why do you think the instructional model chosen in question #4 has the greatest impact on third-grade ELLs’ literacy proficiency? (Please specify the instructional model chosen with your response)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>What do you consider to be an optimal learning environment for the third-grade ELL students in your district?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>How do you feel third-grade ELL students learn the most effectively?</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Based on these findings, new codes were developed. More information about qualitative data analysis appears later in Chapter 4.

Research Question 1: Quantitative Data

Research Question 1, “What difference exists in literacy proficiency of third-
grade ELLs in the Spanish two-way immersion, full immersion, and traditional classroom as measured by third-grade reading EOG assessment scores,” was answered with the third-grade ELL EOG reading grade-level proficiency scores from each school site. As shown in Figure 3, there were 181 schools represented in the data set, and the scores were aggregated by educational model.

![Diagram showing the distribution of educational models: Full Immersion (5%), Traditional (84%), Spanish Two-Way Immersion (11%).]

Figure 3. Educational Model.

Regarding the educational model, 5% \((n = 9)\) used the full immersion model, 84% \((n = 152)\) used the traditional model, and 11% \((n = 20)\) used the Spanish two-way immersion model. Descriptive statistics are summarized in Table 8.
Table 8

Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Grade ELL Reading EOG Scores 2015-2016</td>
<td>6.30</td>
<td>83.30</td>
<td>32.38</td>
<td>13.92</td>
</tr>
<tr>
<td>3rd Grade ELL Reading EOG Scores 2016-2017</td>
<td>5.00</td>
<td>66.70</td>
<td>31.52</td>
<td>12.62</td>
</tr>
<tr>
<td>3rd Grade ELL Reading EOG Scores 2017-2018</td>
<td>5.60</td>
<td>64.70</td>
<td>28.00</td>
<td>10.50</td>
</tr>
</tbody>
</table>

The third-grade ELL reading EOG scores for the 2015-2016 school year ranged from 6.30 to 83.30 ($M = 32.38$, $SD = 13.92$). The third-grade ELL reading EOG scores for the 2016-2017 school year ranged from 5.00 to 66.70 ($M = 31.52$, $SD = 12.62$). The third-grade ELL reading EOG scores for the 2017-2018 school year ranged from 5.60 to 64.70 ($M = 28.00$, $SD = 10.50$).

Validity of the Instrument

According to Henrichsen, Smith, and Baker (1997), validity is the extent to which the research design and methods can genuinely represent the findings. To ensure the validity of the mixed design ANOVA instrument being used, the data were tested to meet essential assumptions. The data were first screened for normality with the Kolmogorov-Smirnov Test of Normality and illustrated with histograms for each educational model classification. Distributions are normal when the significance level ($p$-value) is greater than .05. As indicated in Table 9, most of the distributions were within normal limits except for the full immersion third-grade EOG scores for the 2015-2016 school year ($p = .01$).
Table 9

*Kolmogorov-Smirnov Test of Normality*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Educational Model</th>
<th>Statistic</th>
<th>Df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Grade ELL Reading EOG Scores 2015-2016</td>
<td>Full Immersion</td>
<td>.317</td>
<td>9</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
<td>.066</td>
<td>152</td>
<td>.200</td>
</tr>
<tr>
<td></td>
<td>Spanish Two-Way Immersion</td>
<td>.108</td>
<td>20</td>
<td>.200</td>
</tr>
<tr>
<td>3rd Grade ELL Reading EOG Scores 2016-2017</td>
<td>Full Immersion</td>
<td>.127</td>
<td>9</td>
<td>.200</td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
<td>.041</td>
<td>152</td>
<td>.200</td>
</tr>
<tr>
<td></td>
<td>Spanish Two-Way Immersion</td>
<td>.147</td>
<td>20</td>
<td>.200</td>
</tr>
<tr>
<td>3rd Grade ELL Reading EOG Scores 2017-2018</td>
<td>Full Immersion</td>
<td>.143</td>
<td>9</td>
<td>.200</td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
<td>.036</td>
<td>152</td>
<td>.200</td>
</tr>
<tr>
<td></td>
<td>Spanish Two-Way Immersion</td>
<td>.160</td>
<td>20</td>
<td>.190</td>
</tr>
</tbody>
</table>

Normal distributions have no skew or skew of zero or near zero. The tails for the distribution for the full immersion EOG 2015-2016 school year scores pointed primarily to the right, indicating that the distribution had a positive skew. See Table 10 for skewness and kurtosis values.
### Table 10

**Skewness and Kurtosis**

<table>
<thead>
<tr>
<th>Educational Model</th>
<th>3rd Grade ELL Reading EOG Scores 15-16</th>
<th>3rd Grade ELL Reading EOG Scores 16-17</th>
<th>3rd Grade ELL Reading EOG Scores 17-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Immersion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.37</td>
<td>-.129</td>
<td>.142</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.717</td>
<td>.717</td>
<td>.717</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.687</td>
<td>-.837</td>
<td>-.670</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>1.40</td>
<td>1.40</td>
<td>1.40</td>
</tr>
<tr>
<td><strong>Traditional</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>152</td>
<td>152</td>
<td>152</td>
</tr>
<tr>
<td>Skewness</td>
<td>.425</td>
<td>.192</td>
<td>.307</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.197</td>
<td>.197</td>
<td>.197</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.261</td>
<td>-.325</td>
<td>.292</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>.391</td>
<td>.391</td>
<td>.391</td>
</tr>
<tr>
<td><strong>Spanish Two-Way Immersion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Skewness</td>
<td>.262</td>
<td>1.143</td>
<td>.737</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.512</td>
<td>.512</td>
<td>.512</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.530</td>
<td>3.579</td>
<td>-.085</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>.992</td>
<td>.992</td>
<td>.992</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>181</td>
<td>181</td>
<td>181</td>
</tr>
<tr>
<td>Skewness</td>
<td>.707</td>
<td>.258</td>
<td>.338</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.181</td>
<td>.181</td>
<td>.181</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.956</td>
<td>-.303</td>
<td>.140</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>.359</td>
<td>.359</td>
<td>.359</td>
</tr>
</tbody>
</table>

The distribution for the full immersion EOG 2015-2016 school year scores pointed primarily to the right, meaning that the distribution had a positive skew. The skewness was $1.37$ ($SE = 0.72$). The skewness was $0.43$ ($SE = 0.20$) for the traditional model. The skewness was $0.26$ ($SE = 0.51$) for the Spanish two-way immersion model. The histogram of 2015-2016 reading EOG scores is presented in Figure 4.
Figure 4. Histogram of 2015-2016 Reading EOG Scores.

The distributions for the EOG 2016-2017 school year scores were within normal limits. For the full immersion model, the skewness was -0.13 ($SE = 0.72$). The skewness was 0.19 ($SE = 0.20$) for the traditional model. The skewness was 1.14 ($SE = 0.51$) for the Spanish two-way immersion model. The histogram of 2016-2017 reading EOG scores is presented in Figure 5.
The distributions for the EOG 2017-2018 school year scores were within normal limits. For the full immersion model, the skewness was 0.14 ($SE = 0.72$). The skewness was 0.31 ($SE = 0.20$) for the traditional model. The skewness was 0.74 ($SE = 0.51$) for the Spanish two-way immersion model. The histogram of 2016-2017 reading EOG scores is presented in Figure 6.
Next, the data were screened for statistical outliers with stem and leaf plots and boxplots. An outlier is defined as a score having a value that is at least 1.5 interquartile ranges below the first quartile, or at least 1.5 interquartile ranges above the third quartile (Simmons, 2017). The boxplot of 2015-2016 reading EOG scores is presented in Figure 7.
Figure 7. Boxplot of 2015-2016 Reading EOG Scores.

The full immersion EOG 2015-2016 school year scores had two outliers ≥ 70. For the distribution traditional model, there was one statistical outlier ≥ 78. The distribution of scores for the Spanish two-way immersion model had one statistical outlier ≥ 50. The boxplot of 2016-2017 reading EOG scores is presented in Figure 8.
The distribution of full immersion EOG 2016-2017 school year scores had no outliers. For the traditional model, there were no statistical outliers. The distribution of scores for the Spanish two-way immersion model had one statistical outlier ≥ 58. The boxplot of 2017-2018 reading EOG scores is presented in Figure 9.

Figure 8. Boxplot of 2016-2017 Reading EOG Scores.
The distribution of full immersion EOG 2017-2018 school year scores had no outliers. For the traditional model, there was one statistical outlier ≥ 65. The distribution of scores for the Spanish two-way immersion model had one statistical outlier ≥ 44.

To summarize the results of the data screening procedures, only one distribution was outside the range of normality, the full immersion third-grade EOG scores for the 2015-2016 school year \((p = .01)\); however, the ANOVA is robust to violations of normality (Warner, 2013). Although statistical outliers were observed in the data, they were not excluded due to the assumption that they were not due to data entry errors;
therefore, the analyses proceeded as planned.

**Mean and Standard Deviation of the Dependent Variable**

In this study, the dependent variable – third-grade ELL literacy proficiency – included grade-level reading proficiency scores from the third-grade EOG. Table 11 shows the group means and standard deviations of third-grade ELL reading proficiency scores for each academic year based on the educational model.

Table 11

*Group Means*

<table>
<thead>
<tr>
<th>Educational Model</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Grade ELL Reading EOG Scores 15-16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Immersion</td>
<td>35.69</td>
<td>24.41</td>
<td>9</td>
</tr>
<tr>
<td>Traditional</td>
<td>32.72</td>
<td>13.57</td>
<td>152</td>
</tr>
<tr>
<td>Spanish Two-Way Immersion</td>
<td>28.36</td>
<td>9.83</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>32.38</td>
<td>13.92</td>
<td>181</td>
</tr>
<tr>
<td>3rd Grade ELL Reading EOG Scores 16-17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Immersion</td>
<td>38.34</td>
<td>12.32</td>
<td>9</td>
</tr>
<tr>
<td>Traditional</td>
<td>31.85</td>
<td>12.66</td>
<td>152</td>
</tr>
<tr>
<td>Spanish Two-Way Immersion</td>
<td>25.93</td>
<td>10.80</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>31.52</td>
<td>12.62</td>
<td>181</td>
</tr>
<tr>
<td>3rd Grade ELL Reading EOG Scores 17-18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Immersion</td>
<td>28.82</td>
<td>15.06</td>
<td>9</td>
</tr>
<tr>
<td>Traditional</td>
<td>28.36</td>
<td>10.34</td>
<td>152</td>
</tr>
<tr>
<td>Spanish Two-Way Immersion</td>
<td>24.93</td>
<td>9.37</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>28.00</td>
<td>10.50</td>
<td>181</td>
</tr>
</tbody>
</table>

Based on the data analysis, there was a significant main effect of school year, $F(2, 356) = 3.43, p = .034$. These data indicate that, ignoring the specific educational model classification, the reading scores differed significantly within the same schools across school years. Specifically, the scores decreased from the first to the third year. There was no significant interaction between school year and educational model classification, $F(4, 356) = 0.48, p = .752$. This fact means that the EOG scores did not change
significantly across the years relative to the educational model classification.

**Mean and Standard Deviation of the Independent Variable**

In this study, the independent variables are school year and classification of educational model. Specifically, the within-subjects factor looked at the three different school years third-grade ELL reading EOG data were obtained. The between-subjects factor looked at the educational model in which the third-grade ELLs attended: traditional, Spanish two-way immersion, and full immersion. An ANOVA summary table is presented in Table 12 indicating the interaction between these two factors on the dependent variable.

Table 12

**ANOVA Summary Table**

<table>
<thead>
<tr>
<th>Within-Subjects Effects</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Year</td>
<td>818.50</td>
<td>2</td>
<td>409.25</td>
<td>3.43</td>
<td>.034</td>
</tr>
<tr>
<td>School Year * Classification</td>
<td>228.34</td>
<td>4</td>
<td>57.08</td>
<td>0.48</td>
<td>.752</td>
</tr>
<tr>
<td>Error (School Year)</td>
<td>42529.35</td>
<td>356</td>
<td>119.46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Between-Subjects Effects</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Model Classification</td>
<td>1486.37</td>
<td>2</td>
<td>743.19</td>
<td>3.38</td>
<td>.36</td>
</tr>
<tr>
<td>Error</td>
<td>39138.12</td>
<td>178</td>
<td>219.88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis showed that there was a significant between-subjects effect for educational model classification, $F(2, 178) = 3.38$, $p = .036$. Fisher’s Least Significant Difference (LSD) post hoc comparisons were implemented to determine where the group differences existed. Two pairwise differences emerged. See Table 1.
Table 13

Fisher’s LSD Post Hoc Comparisons

<table>
<thead>
<tr>
<th>(I) Educational Model</th>
<th>(J) Classroom Setting</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>p</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Immersion</td>
<td>Traditional</td>
<td>3.31</td>
<td>2.94</td>
<td>.261</td>
<td>-2.49</td>
<td>-9.10</td>
<td>9.10</td>
</tr>
<tr>
<td></td>
<td>Spanish Two-Way Immersion</td>
<td>7.88*</td>
<td>3.44</td>
<td>.023</td>
<td>1.10</td>
<td>14.66</td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>Full Immersion</td>
<td>-3.31</td>
<td>2.94</td>
<td>.261</td>
<td>-9.10</td>
<td>-2.49</td>
<td>2.49</td>
</tr>
<tr>
<td></td>
<td>Spanish Two-Way Immersion</td>
<td>4.57*</td>
<td>2.04</td>
<td>.026</td>
<td>.55</td>
<td>8.59</td>
<td></td>
</tr>
<tr>
<td>Spanish Two-Way</td>
<td>Full Immersion</td>
<td>-7.88*</td>
<td>3.44</td>
<td>.023</td>
<td>-14.66</td>
<td>-1.10</td>
<td></td>
</tr>
<tr>
<td>Immersion</td>
<td>Traditional</td>
<td>-4.57*</td>
<td>2.04</td>
<td>.026</td>
<td>-8.59</td>
<td>-.55</td>
<td></td>
</tr>
</tbody>
</table>

EOG scores for the Spanish two-way immersion model were significantly lower (7.88 points lower) than the EOG scores for the full immersion model, \( p = .023 \). EOG scores for the Spanish two-way immersion model were also significantly lower (4.57 points lower) than the EOG scores for the traditional model, \( p = .026 \). The EOG scores for the full immersion model did not differ significantly from the EOG scores for the traditional model, \( p = .261 \). See Figure 10.
Since Figure 10 showed a slight increase in the EOG scores from school years 2015-2016 and 2016-2017 for the full immersion model, a follow-up analysis consisting of a paired samples t-test was done on that group ($n = 9$). There was an improvement in EOG scores by 2.56 points; however, the improvement was not statistically significant, $t(8) = 0.43$, $p = .681$, two-tailed.

**Research Question 2: Quantitative Data**

Research Question 2, “What are the perceptions of North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency,” was answered
with the survey administered online through SurveyMonkey®. The data were exported directly from SurveyMonkey® to SPSS for analysis. Twenty-one participants started the survey. Five participants did not complete the survey and were therefore excluded from the study. This left a sample size of 16 participants. As seen in Table 14, North Carolina EL coordinators were asked how many total years they had been an EL coordinator in North Carolina.

Table 14

| Total Number of Years as EL Coordinator in North Carolina |
|---------------------------------|---------|--------|---------|
| Number of Years                  | n       | %      | Cumulative % |
| 1 year or less                   | 2       | 12.5   | 12.5    |
| 2-3 years                        | 5       | 31.2   | 43.7    |
| 4-5 years                        | 3       | 18.8   | 62.5    |
| 6-9 years                        | 2       | 12.5   | 75.0    |
| 10 years or more                 | 4       | 25.0   | 100.0   |
| Total                            | 16      | 100.0  |          |

Most respondents 56.2% ($n = 9$) had been EL coordinators for 4 or more years, whereas the remaining (43.7%, $n = 7$) had been coordinators for up to 3 years. In North Carolina, an educator is considered highly qualified when he/she has completed 3 or more years in an administrative, supervisory, student service, or teaching area (North Carolina Department of Public Instruction, 2018b). Kini and Podolosky (2016) found that teaching experience is positively associated with student achievement gains. Maranto and Rodgers (1984) researched whether work experience increases productivity and found a causal relationship between work experience and efficiency; therefore, the researcher can conclude the reliability of coordinator perspectives on ELLs was increased by the high percentage of respondents with 4 or more years of experience.

In Figure 11, a bar graph was used to illustrate the educational models being used
for third graders in each EL coordinator’s district. The coordinators were instructed to check all that applied.

![Figure 11. Total Count of Instructional Models Currently in Use.](image)

ESL had the most endorsement \((n = 16)\), followed by Sheltered Content Instruction \((n = 8)\), Two-Way/Dual Language \((n = 4)\), and the Newcomer Program \((n = 1)\).

**Bilingual education.** Participants were asked to what extent they agreed or disagreed with statements about bilingual education. Fifty percent \((n = 8)\) of respondents disagreed that full immersion educational models have a greater impact on increasing
ELLs’ literacy proficiency in English than two-way immersion models, and 6.3% \((n = 1)\) strongly disagreed; however, 31.3% \((n = 5)\) agreed, 6.3% \((n = 1)\) strongly agreed, and 6.3% \((n = 1)\) preferred not to say. Fifty-six percent \((n = 9)\) of coordinators agreed that full immersion and two-way immersion educational models have an equal impact of increasing ELLs’ literacy proficiency in English. Twenty-five percent \((n = 4)\) disagreed; 6.3% \((n = 1)\) strongly disagreed; and 12.5% \((n = 2)\) preferred not to say. Most respondents \((75\%, n = 12)\) agreed or strongly agreed that two-way immersion educational models have a more significant impact on increasing ELLs’ literacy proficiency in English than full immersion educational models; however, 18.8% \((n = 3)\) disagreed, and 6.3% \((n = 1)\) preferred not to say. Most respondents \((68.8\%, n = 11)\) disagreed or strongly disagreed that full immersion and two-way immersion educational models have no impact on increasing ELLs’ literacy proficiency in English; however, 31.3% \((n = 5)\) agreed or strongly agreed. Responses are summarized in Table 15.
Table 15

*Bilingual Education*

<table>
<thead>
<tr>
<th>Bilingual Education</th>
<th>Extent of Agreement</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full immersion educational models have a greater impact on increasing ELLs’ literacy proficiency in English than two-way immersion models.</td>
<td>Prefer not to say</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>8</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>Full immersion and two-way immersion educational models have an equal impact of increasing ELLs’ literacy proficiency in English.</td>
<td>Prefer not to say</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>4</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>9</td>
<td>56.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>Two-way immersion educational models have a greater impact on increasing ELLs’ literacy proficiency in English than full immersion educational models.</td>
<td>Prefer not to say</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>10</td>
<td>62.5</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>Full immersion and two-way immersion educational models have no impact on increasing ELLs’ literacy proficiency in English.</td>
<td>Prefer not to say</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>6</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Overall, the EL coordinators felt the two-way immersion model had the greatest impact on third-grade ELL’s literacy proficiency. In addition, it is imperative to note that the EL coordinators (56.3%, n= 9) agreed that the full immersion and two-way immersion have an equal impact on third-grade ELLs’ literacy proficiency. Last, the idea that the two educational models have no impact was discredited by 68.8% (n= 11) of respondents.
**Language acquisition.** Most participants (81.3%, *n* = 13) disagreed or strongly disagreed that ELLs learn English best when they are immersed in an English-only environment, whereas 18.8% (*n* = 3) agreed or strongly agreed. Most coordinators (68.8%, *n* = 11) agreed or strongly agreed that teaching ELLs to read in their native language promotes higher levels of reading in English; however, 25.1% (*n* = 4) disagreed or strongly disagreed; and 6.3% (*n* = 1) preferred not to say. Nearly all coordinators (93.8%, *n* = 15) agreed or strongly agreed that providing native language support for ELLs helps them to learn academic content, whereas 6.3% (*n* = 1) strongly disagreed. Most educators (81.3%, *n* = 13) agreed or strongly agreed that for both ELLs and native English speakers, the acquisition of academic English is critical to success in content areas, whereas 12.6% (*n* = 2) disagreed or strongly disagreed and 6.3% (*n* = 1) preferred not to say. Most participants (68.8%, *n* = 11) agreed or strongly agreed that ELLs’ cognitive processes should be strengthened so they are able to transfer written word and spoken language from one language to another, whereas 18.8% (*n* = 3) disagreed or strongly disagreed and 12.5% (*n* = 2) preferred not to say. Responses are summarized in Table 16.
Table 16

*Language Acquisition*

<table>
<thead>
<tr>
<th>Language Acquisition</th>
<th>Extent of Agreement</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELLs learn English best when they are immersed in an English-only environment.</td>
<td>Prefer not to say</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>11</td>
<td>68.8</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>Teaching ELLs to read in their native language promotes higher levels of reading</td>
<td>Prefer not to say</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td>in English.</td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>6</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>Providing native language support for ELLs helps them to learn academic content.</td>
<td>Prefer not to say</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>8</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>For both ELLs and native English speakers, the acquisition of academic English is</td>
<td>Prefer not to say</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td>critical to success in content areas.</td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>10</td>
<td>62.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>ELLs cognitive processes should be strengthened so they are able to transfer</td>
<td>Prefer not to say</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>written word and spoken language from one language to another.</td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>6</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Teaching third-grade ELLs.** Most educators (87.5%, $n = 14$) agreed or strongly agreed that teachers who are not ESL certified but have ELL students in their classroom should be trained in the SIOP instructional method, whereas 12.6% ($n = 2$) disagreed or
strongly disagreed. Most respondents (62.6%, \( n = 10 \)) disagreed or strongly disagreed that if a teacher is effective with non-ELL students, they will be effective with ELLs as well using best practice teaching strategies, whereas 31.3% (\( n = 5 \)) agreed or strongly agreed and 6.3% (\( n = 1 \)) preferred not to say. Nearly all teachers (93.8%, \( n = 15 \)) agreed or strongly agreed that when teaching content to ELLs, teachers should be encouraged to draw on the cultural experiences of the ELL students, whereas 6.3% (\( n = 1 \)) strongly disagreed. Nearly all coordinators (93.8%, \( n = 15 \)) agreed or strongly agreed that teachers are most effective when they understand the cultural backgrounds of their ELL students, whereas 6.3% (\( n = 1 \)) strongly disagreed. Similarly, nearly all participants (93.8%, \( n = 15 \)) agreed or strongly agreed that teachers with ELLs in their classroom should implement the five essential components of reading within their classroom instruction, whereas 6.3% (\( n = 1 \)) strongly disagreed. Responses are summarized in Table 17.
### Teaching Third-grade ELLs

<table>
<thead>
<tr>
<th>Teaching 3rd Grade ELLs</th>
<th>Extent of Agreement</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers who are not ESL certified, but who have ELL students in their classrooms, should be trained in the SIOP Model.</td>
<td>Prefer not to say</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>6</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>8</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>If a teacher is effective with non-ELL students, they will be effective with ELLs as well using best practice teaching strategies.</td>
<td>Prefer not to say</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>9</td>
<td>56.3</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>When teaching content to ELLs, teachers should be encouraged to draw on the cultural experiences of the ELL students.</td>
<td>Prefer not to say</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>8</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>Teachers are most effective when they understand the cultural backgrounds of their ELL students.</td>
<td>Prefer not to say</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>5</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>10</td>
<td>62.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
<tr>
<td>Teachers with ELLs in their classroom should implement the five essential components of reading within their classroom instruction.</td>
<td>Prefer not to say</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>8</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Instrument Reliability**

The reliability of the survey instrument for the respondents was tested with Cronbach’s alpha. The reliability for all 14 items was good (\(\alpha = .84\)). The minimum
acceptable reliability is .70 (Brace, Kemp, & Snelgar, 2013).

Research Question 2: Qualitative Data

The qualitative portion of Research Question 2 was answered with the three open-ended survey questions administered online through SurveyMonkey®. Eighteen EL coordinators completed the initial open-ended question, and 13 participants completed the final two survey questions. The data from all three questions were analyzed using SurveyMonkey’s text analysis software. The text analysis software identifies words and phrases that frequently appear in responses. The words and phrases identified with increasing frequency by SurveyMonkey® were then examined to identify recurring themes.

Explanation of the instructional model’s impact. The first open-ended survey question asked, “Why do you think the instructional model chosen in question #4 has the greatest impact on third-grade ELLs’ literacy proficiency? (Please specify the instructional model chosen with your response).” Figure 12 summarizes the responses.
Eighteen of 21 EL coordinators responded to the question. Sixty-three percent of participants ($n = 12$) responded that the ESL model was perceived to have the greatest impact on third-grade ELLs’ literacy proficiency. Thirty-one percent ($n = 6$) of EL coordinators perceived the two-way immersion model as having the greatest impact.

The coordinators’ explanations of why they chose a particular educational model were coded, and the identified themes and the number of responses per theme are summarized in Table 18.
Four themes emerged from participant explanations of why they chose the ESL and two-way immersion instructional models as having the greatest impact on third-grade ELLs’ literacy proficiency. The first theme that emerged from the survey question was that educational models with the most significant impact meet student needs. Twenty-eight percent of respondent (n = 5) responses followed this theme and all agreed the ESL model provided this component. One coordinator wrote, “ESL services allows the EL teacher to focus on areas of need with additional support” (Online Survey, November 29, 2018). Another participant wrote, “You have more flexibility to address each student’s needs.” (Online Survey, November 29, 2018). These responses indicated that meeting student needs is a top priority for third-grade ELL literacy proficiency.

The second theme that emerged was instructional models that increased English language acquisition had the greatest impact on third-grade ELLs’ literacy proficiency. This theme was identified by combining the frequency of language acquisition and English in participant responses. The combined themes showed a 28% (n = 5) response frequency; however, different from the first theme was a split in opinion on the instructional model that provided this component. Three participants perceived the ESL model as providing increased language acquisition, while two respondents stated that the two-way immersion model was the ideal model to provide this factor. One coordinator wrote,
ESL provides small group instruction based on the English proficiency level of the student. This helps the teacher focus on the English needs of the students. The positive results of Dual Language don’t begin to show up until middle school; thus, the greatest impact for ELs in third-grade is ESL pullout. (Online Survey, December 4, 2018).

Contrarily, a coordinator in favor of the two-way immersion model wrote, “Because EL learners are also learning the content in their language as well as in English. This allows them not lose any content and it lessens the amount of misunderstanding of what is taught” (Online Survey, December 12, 2018). Another coordinator in favor of the two-way immersion model commented, “Students are able to make academic language connections to content in this model that isn't possible in any other model” (Online Survey, November 29, 2018). The responses from the survey highlighted the importance of English language acquisition and its effect on ELLs’ literacy proficiency; however, it shows the continued lack of continuity in perceived best instructional settings for ELLs.

The final theme identified from the survey responses focused on ELLs’ literacy proficiency increasing with instruction from a specialized teacher, specifically an ESL/EL teacher. According to a respondent, “English Learners that received ESL services have the support from a specialized teacher that uses strategies to target the learning of a second language” (Online Survey, December 13, 2018). Furthermore, it was commented, “Supplemental support from an EL teacher in addition to full immersion seems to get the best results” (Online Survey, November 29, 2018).

From the online survey results, it is apparent that EL coordinators believe that instruction from a specialized teacher is key to an ELL’s academic success. It is also
apparent that the EL coordinators perceive instructional settings that meet the specific needs of ELLs, such as English language acquisition, are vital to increasing ELLs’ literacy proficiency. These same themes were also evident in the second open-ended survey question.

An optimal learning environment for ELLs. The second open-ended survey question asked, “What do you consider to be an optimal learning environment for the third-grade ELL students in your district?” Thirteen of 21 EL coordinators responded to the question. Table 19 summarizes the identified themes and the number of responses coded per theme.

Table 19

<table>
<thead>
<tr>
<th>Optimal Learning Environment: Number of Coded Responses per Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

The word teacher was used in 23.08% of responses. The EL coordinators placed the sole responsibility on the teacher for creating an optimal learning environment for ELL students. More specifically, responses centered on teachers being skilled, certified, ESL/EL, and trained to work with the subgroup. The response of one participant, “A classroom led by a skilled, compassionate teacher who understands how to differentiate instruction and build relationships with students and families” (Online Survey, December 17, 2018), summarizes the responses of the majority. From the central theme of the teacher providing an optimal learning environment for ELL students, three subthemes emerged.

The subcategories that emerged were support, instruction, and SIOP. EL
coordinator responses indicated that the perceived optimal environment for a third-grade ELL is one that provides additional support to an ELL student from an EL certified teacher or a teacher trained in SIOP strategies. This was gleaned from responses such as “Two-way immersion classrooms with SIOP or EL certified teachers. I also believe that co-teaching with an EL certified teacher is extremely beneficial” (Online Survey, November 29, 2018). Another coordinator replied, “Support from the ESL teacher and classroom teacher trained with SIOP Model” (Online Survey, December 13, 2018); and a different respondent stated, “Mainstream teachers using sheltered instruction to meet the needs of ELLs” (Online Survey, December 17, 2018).

Simultaneously, the responses to the question also suggested that an optimal learning environment for a third-grade ELL provides them with the instruction that is scaffolded or individualized to meet the needs of the subgroup. This finding was concluded from survey replies that noted, “If 3rd grade ESL students receive strong one on one support on a daily basis, they demonstrate significant growth” (Online Survey, November 29, 2018); and another participant stated, “A classroom led by a skilled, compassionate teacher who understands how to differentiate instruction and build relationships with students and families” (Online Survey, December 17, 2018). Likewise, an additional EL coordinator wrote, “One in which teacher understands that the EL student may struggle but are still able to learn the same content with sufficient scaffolding of instruction and additional supports” (Online Survey, November 29, 2018).

Based on the themes that emerged from survey item 2, the researcher concluded that most of the responses described characteristics of the traditional educational model providing ESL instructional services as an optimal learning environment for ELLs’;
however, the researcher noted that the themes identified from analysis could also be applied to any of the three instructional models. From open-ended survey questions 1 and 2, the same themes were consistent and highlighted the importance of the teacher providing instruction that supports the needs of an ELL student. In the last open-ended survey question once the responses were coded, it was evident the central theme remained the same.

**Effective learning for ELLs.** The third open-ended survey item asked, “How do you feel third-grade ELL students learn the most effectively?” Thirteen of 21 EL coordinators responded to the question. Table 20 summarizes the identified themes and the number of responses coded per theme.

Table 20

<table>
<thead>
<tr>
<th>SIOP</th>
<th>Receptive Environment</th>
<th>Individualized/Differentiated Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

EL coordinators perceived the SIOP instructional method to be an effective strategy to use with ELLs to ensure they are learning. One noted, “Inclusion support when possible with SIOP strategies in reg ed room while some pullout dual language support” (Online Survey, December 4, 2018). A different coordinator stated, “Two-way DL with language learning supported by sheltered techniques and strategies” (Online Survey, November 30, 2018). Participants cited SIOP as an effective strategy for ELLs regardless of the instructional model. Two key components of SIOP were emphasized in survey results. The first key component was comprehensible input. Comprehensible input is a teacher’s input that helps students understand and “use information they already
know to interpret new linguistic concepts” (VipKid, 2017, para. 4). An EL coordinator stated, “I feel they learn most effectively when they have access to comprehensible input delivered by teachers who lower their affective filter” (Online Survey, November 29, 2018). Research has found that utilizing comprehensible input within the classroom increases language acquisition and optimal learning (VipKid, 2017).

The second essential component of SIOP that was mentioned in survey results was differentiated instruction. Differentiated instruction has also been noted to increase optimal learning. Thirty-eight percent ($n = 5$) of responses indicated that differentiated or individualized instruction helped third-grade ELLs to learn most effectively. During survey analyses, the researcher decided to group the two terms because of their near synonymous meaning. Additionally, the term individualized instruction was initially defined to mean instructional approaches that met an individual student’s needs but over time morphed to mean a student being able to work through curricula at their own pace. According to Bayse (2018), in today’s classrooms, individualized instruction is best defined by what differentiation looks like when put into practice; therefore, it is unknown if respondents were using differentiated and individualized instruction synonymously, as one replied, “Individualized instruction,” (Online Survey, December 17, 2018) and a different participant responded, “When their teachers differentiate instruction for them” (Online Survey, December 17, 2018). However, it was understood from responses that the EL coordinators perceive individualized or differentiated instruction as essential to ELL learning.

The last theme that emerged from EL coordinators responding to how ELLs learn the most effectively was providing a receptive environment. Coordinator responses
centered on teachers being welcoming and culturally sensitive to the subgroup, as one stated, “When they are in a welcoming environment, when teachers show them how much they care and take time to learn about their ELs culture and background” (Online Survey, December 13, 2018). Another coordinator pointed out, “When the environment is receptive to their differences. It does not focus on what they may have stated incorrectly and immediately correcting them in front of others, but it focuses on how to help them better understand what is being taught in a positive way” (Online Survey, December 17, 2018).

**Summary**

The purpose of the qualitative section of this study was to explore perceptions of North Carolina EL coordinators on best practices for educating ELLs. The responses were coded concerning characteristics employed in the two-way immersion, full immersion, and traditional educational model to identify the instructional model perceived by the EL coordinators to be most conducive in increasing ELLs’ literacy proficiency. Furthermore, the researcher analyzed the responses about the implementation of the five essential components of reading instruction as the best practice to increase literacy proficiency of third-grade ELLs. The researcher used SurveyMonkey® text analysis to analyze and code the open-ended survey question responses.

Analyses of the five essential components of reading instruction were examined first. The quantitative analysis of the survey responses, as seen in Table 16, showed 93.8% of EL coordinators strongly agreed or agreed that teachers with ELLs in their classroom should implement the five essential components of reading within their
classroom instruction; therefore, the researcher concluded that the coordinators perceived implementing the reading components within classroom instruction as best practice to increase third-grade ELLs’ literacy proficiency. However, the qualitative data analysis did not substantiate the conclusion. The analysis of the open-ended survey answers found there was no mention of the reading components in any of the EL coordinators’ responses.

Next, the researcher examined specific characteristics of educational models in the EL coordinators’ responses. The analysis identified that the perceived educational model to be the most effective in increasing ELLs’ literacy proficiency as the traditional model with ESL services provided. Responses to open-ended survey questions 1 and 2 highlighted the specific characteristics of the traditional educational model with ESL services. Last, the overall analysis of the qualitative data identified recurring themes across all three questions. The recurring themes showed EL coordinators perceived certified teacher support and SIOP implementation as essential components to increase third-grade ELLs’ literacy proficiency.

Chapter 5 provides a brief synopsis of the study, an interpretation and discussion of the findings, and recommendations of the researcher. The findings are organized into categories using themes from the review of literature, Chapter 4, and components of the conceptual framework which guided the research. Recommendations regarding each theme are included in each section.
Chapter 5: Conclusions, Discussions, and Recommendations

Introduction

The purpose of this mixed methods comparative case study was to determine the instructional model most conducive to increasing a third-grade ELL’s literacy proficiency. Quantitative data were collected to determine if significant differences existed in third-grade ELLs’ EOG reading scores relative to three different instructional approaches on third-grade ELLs during literacy instruction in public elementary schools in North Carolina: traditional, Spanish two-way immersion, and Spanish full immersion. Additionally, quantitative and qualitative data were collected through close- and open-ended survey questions to determine what perceptions existed with North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency. The quantitative and qualitative survey data were analyzed separately and compared to determine the findings.

This chapter includes a summary of the study, a brief interpretation and discussion of the results, and suggestions for future research. Additionally, the chapter discusses the limitations of the study and provides a summary of the findings.

Summary of the Study

Through quantitative and qualitative data, this study evaluated the impact educational models (traditional, Spanish two-way immersion, and full Spanish immersion) have on third-grade ELLs’ proficiency in literacy. The following research questions were developed and guided the data collection process:

1. What difference exists in literacy proficiency of third-grade ELLs in the Spanish two-way immersion, full immersion, and traditional classroom as
measured by third-grade reading EOG assessment scores?

2. What are the perceptions of North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency?

To begin answering the identified research questions, it was necessary to understand how third-grade language minorities identified as LEP acquire literacy proficiency. Cummins’s (1979) LIH laid the groundwork for much of this study as the researcher evaluated the extent in which educational models are helping or hurting ELLs’ literacy proficiency based on their instructional focus of developing academic proficiency in the L1, L2, or both.

Initial data for the study were collected from third-grade reading EOG assessment scores from ELLs over the past 3 consecutive school years. The data were analyzed using a mixed design ANOVA. Next, North Carolina EL coordinators were sent a survey that contained open- and close-ended survey questions. The close-ended survey data were analyzed and pinpointed the extent to which an educational model was favored over another. Last, the open-ended responses were coded and analyzed for common themes.

**Interpretation and Discussion of Quantitative Results**

The quantitative findings from the study are a result of the data collection from a summative assessment over the past 3 consecutive school years and close-ended survey data collected from North Carolina EL coordinators. The findings are presented in relation to the two research questions addressed in the study.

**Reading EOG assessment data.** The assessment tool addressed Research Question 1, “What difference exists in literacy proficiency of third-grade ELLs in the Spanish two-way immersion, full immersion, and traditional classroom as measured
by third-grade reading EOG assessment scores?” The EOG data presented in Chapter 4 showed that full immersion schools had the greatest overall impact on increasing third-grade ELLs’ literacy proficiency. Because of the small sample size of the full immersion model, the results need to be considered as more suggestive than definitive, but they point to the possibility that implementation of the full immersion model improves third-grade ELLs’ literacy proficiency significantly. In addition, it concluded that the two-way immersion model had the least overall impact on third-grade ELLs’ literacy proficiency in comparison to the full immersion and traditional model. The researcher examined the 3 consecutive school years from 2015 to 2017 to see if there were differences in that finding from year to year. It was concluded that all 3 years revealed the same information. Furthermore, analysis showed the rate of change was the same across all educational models. Ignoring the educational model, ELLs showed a decrease in literacy proficiency from year one to year three in all settings, as seen in Table 10.

These findings negated Cummins’s (1976) threshold theory and Thomas and Collier’s (2002) theory that academic development of L1 and L2 should take place simultaneously to increase developmental outcomes for ELLs (Kim et al., 2013). Instead, the results of this study reinforced that receiving instruction in the key components of reading and oral language development trump native language instruction. Furthermore, the results supported the research findings of Genesee (1978) and Bruck (1982) as the data showed that the third-grade ELLs in the traditional and full immersion programs achieved at similar academic proficiency.

The researcher concluded that there are two factors that could contribute to the findings: peer-to-peer facilitated language sharing and metalinguistic awareness skills.
Both factors are key components in ELLs’ academic success. Peer-to-peer facilitated language sharing is the attainment of knowledge and skills in a target language through collaboration, giving and receiving of feedback, and the evaluation of learning by equal peers (Ismail, Atek, Azmi, & Mohamad, 2015). Peer-to-peer facilitated language sharing in the traditional and full immersion model stems from majority English language proficient students within the classroom. Contrary to the other two language programs, the two-way immersion model has a heavier concentration of minority language students within the classroom (Baker, 2006). Justice et al. (as cited in Cooc & Kim, 2017) studied language growth of children and found that putting children with high and low initial levels of language development in the same classroom resulted in increased gains of those with initial low levels of language development, thus the benefits of peer influence increasing the ELLs English language acquisition is diminished significantly in the two-way immersion classroom.

Furthermore, meta-analysis of the effects of bilingualism on metalinguistic skills has shown that bilinguals have greater metalinguistic awareness than their monolingual peers (Adesope, Lavin, Thompson, & Ungerleider, 2010). Adesope et al. (2010) postulated that bilinguals develop a clear understanding of how language works from attaining and maintaining two different languages that have different systems and structures. Metalinguistic awareness has been linked to increased reading comprehension proficiency (Zhang, McBride, Tong, Wong, & Shu, 2012); therefore, it is pertinent to note that the full immersion model is the only language program of the three in this study that meets both the balance of peer language influence necessity and the instructional ability to increase metalinguistic skills of ELLs.
Close-ended survey data. Despite the reading EOG data showing the full immersion model as the most effective in increasing third-grade ELLs’ literacy proficiency, North Carolina EL coordinators’ opinions differed on the model of choice. To address Research Question 2, “What are the perceptions of North Carolina EL coordinators on best practices for increasing ELLs’ literacy proficiency,” the researcher used quantitative and qualitative data from the survey. The overall quantitative data showed North Carolina EL coordinators perceived the two-way immersion model to be the most effective language program to increase third-grade ELLs’ literacy proficiency. The results showed that the North Carolina EL coordinators felt that utilizing best teaching practices alone with ELLs was not effective enough to increase academic achievement. Instead, it was perceived that understanding and drawing on the cultural experiences and backgrounds of ELLs served to increase ELLs’ academic achievement. Furthermore, the coordinators postulated ELLs’ L1 should be developed to be academically successful in their L2, as outlined by Cummins’s (1979) LIH. Many current studies have highlighted the transfer of L1 abilities to L2 (Chuang, Joshi, & Dixon, 2012; Kim & Piper, 2019), which supports Cummins’s (1979) LIH as well as has been used as the driving force for the two-way immersion language program increase. Tabari and Sadighi’s (2014) research concluded that permitting ELLs to acquire knowledge in the L1 and L2 created a more secure environment and increased ELLs’ reactions in a favorable manner; therefore, the perceptions of the North Carolina EL coordinators are reflective of popular opinion among educators based on current research.

Interpretation and Discussion of Qualitative Results

Contrary to the quantitative data of the survey, the qualitative data of the inquiry
showed North Carolina EL coordinators perceived the characteristics of the traditional school model utilizing ESL services the best model to increase third-grade ELLs’ literacy proficiency. As seen in Figure 12, North Carolina EL coordinators chose the ESL instructional model provided by the traditional language program as the instructional model with the greatest impact. Analyses of the responses showed coordinators felt the traditional language program benefitted the ELLs most in English language acquisition. The subject of how and what increases ELLs English language acquisition has been a long-debated topic. According to Bao (as cited in Harosky, 2016), “Language is developed through the social interaction of individuals, modified input, feedback and negotiation meaning” (p. 21), thus interaction with a content and an ESL teacher provides ELLs the opportunity to mimic and develop language (Harosky, 2016). Similarly, bilingual education provides the opportunity for social interaction; but as noted by the ELL coordinators and current research, bilingual education creates an initial lag in ELP causing positive results of language acquisition not to manifest until upper elementary or middle school (Chin, 2015; Slavin, Madden, Calderón, Chamberlain, & Hennessy, 2011). Additionally, bilingual programs only work when there are equal concentrations of English proficient students and those who speak the native language, as both subgroups support each other’s bilingualism (Williams & Brown, 2016). Unfortunately, not all parents want their children to attend a bilingual school, and teacher quality is a contributing factor (Williams & Brown, 2016).

This study’s results showed that the North Carolina EL coordinators deemed teachers an essential component in increasing third-grade ELLs’ academic performance. The coordinators’ responses favored the traditional language program utilizing the ESL
method as ideal for third-grade ELLs because of its implementation of a specialized teacher working with the subgroup to meet their needs. Specifically noted in the responses was the necessity of certified teachers because of their ability to differentiate instruction for ELLs. The coordinators’ choice of the traditional model being the most impactful is supported by Williams (2018) who explained dual-language programs are noted to have high teacher turnover as well as bilingual teachers who lack credentials. According to Williams, Garcia, Connally, Cook, and Dancy (2016), “Over half of states (and half of major urban districts) report shortages of bilingual or English as a Second Language teachers” (p. 3), hence the preference by many districts to offer a traditional model offering ESL services to ELLs instead of dual-language programs (Anderer, 2017).

Although the qualitative results of the survey showed that the coordinators favored the ESL instructional approach as the best to improve ELLs’ literacy proficiency, the researcher noted the increased frequency of the SIOP instructional method within responses. EL coordinators indicated that regardless of the language program, SIOP should be implemented within the classroom when working with ELLs. Research suggests that the way teachers instruct, and guide knowledge must be refined to ensure ELLs achieve content and academic language proficiency (Short, 2013). According to Echevarria and Short (as cited in McNeil, 2018), “The SIOP approach complements techniques and practices recommended for use in both mainstream and second language classrooms” (p. 125).

**Connection to Theoretical Framework**

According to Bainbridge (2018), “All children, no matter which language their
parents speak, learn a language in the same way” (para. 1). Children learn their native language involuntarily and unconsciously from exposure to the speech sounds of the language in their immediate environment (Bainbridge, 2018; Crystal & Robbins, 2019). Contrarily, second language acquisition is deliberately learned and must be purposefully taught; therefore, with the rise in ESL speakers in public schools, there is an ongoing debate on the best language program and instructional methods to increase ELLs’ academic success in English. This study is premised on the understanding that the language used for instruction influences the academic success of ELLs. It draws on Cummins’s (1979) LIH that first language literacy competencies are transferable to corresponding second language abilities because linguistic differences exist only on the surface, but deep-down languages coalesce (Sibanda, 2017). Thus, this study questioned and evaluated the effect of cross linguistic transfer in a traditional, two-way immersion, and full immersion setting on third-grade ELLs’ literacy proficiency. Upon data analysis, Cummins’s (1979) LIH was not substantiated by the quantitative reading assessment results from the study. The findings showed that target instruction was not needed in L1 for third-grade ELLs to be proficient in L2 literacy. The quantitative and qualitative survey data showed the North Carolina EL coordinators’ perceptions of which language program was best for ELLs were varied. The coordinators agreed with Cummins’s (1979) LIH in their quantitative replies, but their open-ended responses corresponded with characteristics of a traditional model, thus this study showed that bilingual programs that follow Cummins’s (1979) LIH are favored by EL coordinators to increase third-grade ELLs’ literacy proficiency. However, when choosing a language program most conducive to increase third-grade ELLs’ literacy proficiency, North Carolina EL
coordinators perceived the traditional model to be the best fit.

**Limitations of the Study**

The findings from this study are only applicable to public schools in North Carolina that had 3 years of third-grade ELL reading EOG data and an average C school rating over the 3 years. As a result, generalizations might not be possible regarding the wider educational community. It is to be noted that the study did not consider if the third-grade ELL data obtained was from an individual that was a newcomer or who had been at their current school all four years. It is also necessary to note the criteria used for sample design and the newness of the program model resulted in a small sample size for the full immersion model. Although specific steps were included to maximize the reliability of the results, it is necessary to take into consideration the possibility that a larger full immersion sample size could have yielded different results. Additionally, the researcher must highlight that none of the North Carolina EL coordinators who participated in the survey indicated the full immersion model as being used within their district, thus their perceptions of best language program to use to increase third-grade ELLs’ literacy proficiency may be influenced by the model(s) they currently use within their district.

**Recommendations Based on Findings**

Based on the findings of this study, the researcher recommends the implementation of three key components within every public-school setting that houses ELLs: peer feedback, metalinguistic awareness skills, and SIOP.

**Peer feedback.** According to Wind (2018), peer-to-peer feedback is an “effective pedagogical strategy to teach students the skills of critical thinking, giving and receiving
feedback and taking responsibility for their own learning” (para. 4). Peer-to-peer feedback is an effective tool when expectations have been set at the beginning of the process (Alrubail, 2015). Students must understand that peer-to-peer feedback is not judging the work of a peer but giving constructive feedback to help a peer improve their work. Incorporation of a feedback rubric within the classroom enables effective peer-to-peer feedback (Wind, 2018).

**Metalinguistic awareness skills.** Metalinguistic awareness is the ability to manipulate language, monitor and repair breakdowns in communication, and understand the units associated with language such as sounds, syllables, words, and sentences (Zipke, 2008). Metalinguistic skills can be developed using riddles, vocabulary activities, and teacher modeling of good reading and thinking behaviors during a read aloud (Lightsey & Frye, 2004).

**SIOP.** Sheltered instruction observation protocol is a research based and validated instructional approach to aid teachers in design and delivery of lessons that meet the academic and linguistic needs of ELLs (Center for Applied Linguistics, 2011). The SIOP method enables teachers to “develop student academic language skills across the domains of reading, writing, listening, and speaking” (Kareva & Echevarria, 2013, p. 2). The framework allows for variation in teaching styles, but every lesson requires incorporation of oral language practice and academic vocabulary development (Kareva & Echevarria, 2013).

It is essential for the researcher to note that these three components and their positive effect on ELLs’ academic success are not predicated on the target language of instruction. Research has shown that bilingualism increases metalinguistic skills;
however, it also has been noted that the incorporation of phonemic awareness, syntactic awareness, and lexical awareness tasks also increase metalinguistic awareness (Euch & Huot, 2015). In addition, the SIOP instructional method was designed for the ELL subgroup but can also be used with mainstream learners. According to the Center for Applied Linguistics (2018b), the SIOP instructional method uses approaches such as hands-on materials and cooperative learning that has been proven to benefit all learners. Intertwining the SIOP instructional method and peer-to-peer feedback provides ELLs the opportunity to learn in a way mistakes can be made, and instruction is tailored to meet their individual needs, thus the three key components identified by the quantitative and qualitative findings in this study are not limited to the educational setting and suggest school districts not focus solely on language of instruction but delivery and reinforcement of instruction. From the results of this study and looking singularly at the research behind each component, the researcher is confident in recommending the implementation of these components when working with ELLs.

**Suggestions for Future Research**

This study provided further insight on the effect language program models are having on ELLs’ literacy proficiency based on grade-level specific standards. Current research suggests that ELLs benefit most from bilingual programs because they create bilingual students; however, research on measuring an ELL’s bilingualism is lacking, as assessments are only given in English. As a result, future research needs to be conducted evaluating the impact a bilingual program is having on an ELLs’ literacy proficiency in both target languages. In addition, further research needs to be conducted on the specific methods the programs are using to better understand the “why” behind the impact.
Determining the congruence in instruction that is having the most impact on ELLs’ literacy proficiency will further explain the “why.” Last, future research needs to identify which program model for ELLs is creating literate individuals, thus measuring an ELLs yearly academic success using reading growth data and not grade-level specific standard assessments.

Summary of Findings

Even though Cummins (1979) and other researchers (August & Shanahan, 2006; Thomas & Collier, 2002; Lindholm-Leary, 2001) have postulated that the two-way immersion model is the best language program for ELLs, this study’s results did not support this theory. Quantitative data obtained in this study from third-grade ELLs in North Carolina public schools indicated that the full immersion model is the most effective model to increase the subgroup’s literacy proficiency. The research findings highlighted the necessity of bilingual education for ELLs, specifically bilingual education that has an equal amount of majority and minority peers in the same learning environment for peer-to-peer interaction. Furthermore, this study highlighted the continued lack of consensus from educational experts on what is best for ELLs to be successful academically. Quantitatively, North Carolina EL coordinators perceived the two-way immersion model to be the most effective model to increase ELLs’ literacy proficiency; however, their descriptive responses to what environment was best for third-grade ELLs described the traditional model with ESL services provided for ELLs. Overall, North Carolina EL coordinators felt the specific language program made no difference as long as SIOP was being implemented within the classrooms of ELLs. The overall findings of this study suggested that the focus on closing the academic
achievement gap for ELLs should shift from the language of instruction to the quality of the instructor and the quality of instruction.
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doi:10.4304/tpls.3.2.254-262
Appendix A

North Carolina EL Coordinators Email Invitation
The researcher will remind the participants of their rights as a volunteer taking the survey before starting by stating the following:

This email is to invite you to participate in an electronic survey to help gather insight from EL coordinators on how public-school districts in NC are working to close the achievement gap with the ELL students they serve. EL coordinators will share their knowledge and beliefs on best practices for educating ELLs and the level of support ELL students are given by schools and the overall district. All participation in this research is, of course, voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identified state. Your confidentiality and anonymity are assured, as use of this data will be limited to this research, as authorized by Gardner Webb University, although results may ultimately be presented in other formats than the dissertation, such as journal articles or conference presentations.

The electronic survey will only take no more than 5 minutes of your time. If you are interested in participating, please click the button below to start the survey. Thank you so much for your interest and your participation in this study. I appreciate your time.

If you have questions, feel free to contact me at ***** or my dissertation chair, Dr. Putnam at *****.

Sincerely,
Alecia Roberts
Appendix B

North Carolina EL Coordinators Survey
1. Do you agree to the above terms? By clicking Yes, you consent that you are willing to answer the questions in this survey.
   - Yes, I agree to participate in the survey.
   - No, I do not agree to participate in the survey

2. In total, how many years have you been an English Learner coordinator in North Carolina?
   - 1 year or less
   - 2-3 years
   - 4-5 years
   - 6-9 years
   - 10 years or more
   - Prefer Not to Say

3. In your district, which English Language Learner instructional models are currently used for third-grade ELLs? (Check all that apply)
   - English as a Second Language (ESL)
   - Two-way/Dual language
   - Full Immersion Program
   - Sheltered Content Instruction (SIOP)
   - Newcomer Program
   - Prefer Not to Say

4. Which English Language Learner instructional model do you believe has the greatest impact on third-grade ELLs’ literacy proficiency?
   - English as a Second Language (ESL)
5. Why do you think the instructional model chosen in question #4 has the greatest impact on third-grade ELLs’ literacy proficiency? (Please specify the instructional model chosen with your response)

6. Please indicate the extent to which you agree or disagree with the statements below about bilingual education.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Prefer Not to Say</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full immersion educational models have a greater impact on increasing ELLs’ literacy proficiency in English than two-way immersion models.</td>
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<tr>
<td>Full immersion and two-way immersion educational models have an equal impact on increasing ELLs’ literacy proficiency in English.</td>
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<td>Two-way immersion educational models have a greater impact on increasing ELLs’ literacy proficiency in English than full immersion educational models.</td>
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<tr>
<td>Full immersion and two-way immersion educational models have no impact on increasing ELLs’ literacy proficiency in English.</td>
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</tbody>
</table>
7. Please indicate the extent to which you agree or disagree with the statements about language acquisition for third-grade ELLs.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Prefer Not to Say</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELLs learn English best when they are immersed in an English-only environment</td>
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<td>Teaching ELLs to read in their native language promotes higher levels of reading in English</td>
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<tr>
<td>Providing native language support for ELLs helps them to learn academic content</td>
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<tr>
<td>For both ELLs and native English speakers, the acquisition of academic English is critical to success in content areas</td>
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<tr>
<td>ELLs cognitive processes should be strengthened so they are able to transfer written word and spoken language from one language to another</td>
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</tbody>
</table>

8. Please indicate the extent to which you agree or disagree with the statements about teaching third-grade ELLs.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Prefer Not to Say</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers who are not ESL certified, but who have ELL students in their classrooms, should be trained in the Sheltered Instruction Observation Protocol (SIOP) Model</td>
<td></td>
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</tr>
<tr>
<td>If a teacher is effective with non-ELL students, they will be effective with ELL students as well using best practice teaching strategies</td>
<td></td>
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</tr>
<tr>
<td>When teaching content to ELLs, teachers should be encouraged to draw on the cultural experiences and backgrounds of the ELL students</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Teachers with ELLs in their classroom should implement the five essential components of reading within their classroom instruction</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
9. What do you consider to be an optimal learning environment for the third-grade ELL students in your district?

10. How do you feel ELL students learn the most effectively?
Appendix C

Non-Disclosure Agreement Consent Form
Title of Study: Impact of Language Program Model on Third-grade English Language Learner’s Proficiency in Literacy

Researcher: Alecia Roberts/Doctoral Candidate

Purpose
The purpose of the research study is to gather insight from EL Coordinators on how they are working to close the achievement with the ELL students within their district. EL Coordinators will share their knowledge and beliefs on best practices for educating ELLs and the level of support ELL students are given by schools and the overall district.

Procedure
What you will do in the study: If you participate in this study, you will complete an electronic survey that will take approximately 5 minutes from start to finish. If you volunteer to participate in the survey, you will be asked some questions relating to your beliefs and knowledge on what factors academically impact ELLs. These questions will help us to better understand how to better educate ELLs. If at any time a question causes discomfort, then the question may be skipped by the participant. You may also end your participation in the survey at any time.

Time Required
It is anticipated that the study will require about 5 minutes of your time.

Voluntary Participation
Participation in this study is voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty.

Confidentiality
Anonymous data from this study will be analyzed by the researcher. No individual participant will be identified or linked to the results. The results of this study may be presented at conferences however, your identity will not be disclosed. A pseudonym will be used for all participants. All information obtained in this study will be kept strictly confidential. All materials will be stored in a secure location and access to files will be restricted. After the study is complete and the data has been analyzed all data obtained will be shredded.

Data Linked with Identifying Information
The information that you give in the study will be handled confidentially. All information will be assigned a code number and will be kept in a locked file. When the study is completed, and the data have been analyzed, this list will be shredded. Your name will not be used in any report.

Confidentiality Cannot be Guaranteed
In some cases, it may not be possible to guarantee confidentiality (e.g., an interview of a prominent person, a focus group interview). Because of the nature of the data, I cannot guarantee
your data will be confidential and it may be possible that others will know what you have reported.

**Risks**
No risk

**Benefits**
There are no direct benefits associated with participation in this study. This study will help us to understand what steps are needed to decrease the achievement gap between ELLs and their native English-speaking peers. Your participation may benefit you and other NC districts by helping to improve ELLs academic experience. The Institutional Review Board at Gardner-Webb University has determined that participation in this study poses minimal risk to participants.

**Payment**
You will receive no payment for participating in the study.

**Right to Withdraw from the Study**
You have the right to withdraw from the study at any time without penalty. During the online survey participants are given the option of “Prefer not to say” as an option for every question. This type of survey design allows participants to proceed without answering the question, which in turn does not violate the respondent's right to withhold information.

**How to Withdraw from the Study**
If you want to withdraw from the study, exit from the survey. There is no penalty for withdrawing.
If you would like to withdraw after your materials have been submitted, please contact Alecia Roberts at XXXXXXX.

**If you have questions about the study, contact the following individuals.**

Alecia Roberts
Gardner-Webb University
Boiling Springs, NC 28017
XXXXXXXX

Dr. Jennifer Putnam
Curriculum & Instruction
Gardner-Webb University
Boiling Springs, NC 28017
XXXXXXXX

If the research design of the study necessitates that its full scope is not explained prior to participation, it will be explained to you after completion of the study. If you have concerns about your rights or how you are being treated, or if you have questions, want more information, or have suggestions, please contact the IRB Institutional Administrator listed below.
Dr. David Granniss  
Chair of the IRB  
Gardner-Webb University  
Boiling Springs, NC 28017  
Telephone: 704-406-2305  
Email: dgranniss@gardner-webb.edu

Voluntary Consent by Participant
I have read the information in this consent form and fully understand the contents of this document. I have had a chance to ask any questions concerning this study and they have been answered for me.

_____ I agree to participate in the survey.

_____ I do not agree to participate in the survey.

_________________________________________ Date: ____________
Participant Printed Name

_________________________________________ Date: ____________
Participant Signature

You will receive a copy of this form for your records.
Appendix D

Permission to Modify Survey
Hi,

Yes, you have my permission to use the survey. Good luck with your work.

Regards,

Hello Dr.

My name is Alecia Roberts and I am a doctoral candidate at Gardner-Webb University in the Curriculum & Instruction department. I am writing you to request permission to modify and use your English Language Learner Program Survey for Principals within my own research. I have attached a copy of the survey I have created using your survey as a model. I have kept some sections the same, however my survey will be geared towards teachers and not principals.

Thank you for taking the time to consider my request. I look forward to hearing from you.

Sincerely,

[Redacted]