A DUAL LANGUAGE TEACHER’S UNDERSTANDING OF ACADEMIC LANGUAGE IN A 5th GRADE LANGUAGE ARTS CLASSROOM

By

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To mamá Erito, who embodied the perfect example of faith, perseverance, and compassion. To my parents, whose self-sacrifice and dedication have been the driving force behind all my academic endeavors. To my husband, Timothy Barko, whose love and unparalleled support have been my strength throughout this arduous process.
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"My God and my All" (Saint Francis of Assisi).

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<td>Basic interpersonal communicative skills. Word to be defined as supported by “meaningful interpersonal and contextual cues” (Cummins, 1979).</td>
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<td>Cognitive academic language proficiency. Students’ skills to use and produce language related to various academic demands (Cummins, 1979).</td>
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<td>CCSS</td>
<td>Common Core State Standards</td>
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<td>Systemic functional linguistics. A theory of language evolving around the notion of language functions. It not only accounts for the syntactic functions of language, but it positions the functions of language as a key component to the theory, in other words, what language does, and how it does it. SFL is framed by social context, and analyzes how language is shaped by its social context (Halliday, 1985)</td>
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Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

A DUAL LANGUAGE TEACHER'S UNDERSTANDING OF ACADEMIC LANGUAGE IN A 5TH GRADE LANGUAGE ARTS CLASSROOM

By

Katherine Alva

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Chair: Ester de Jong
Major: Curriculum and Instruction

Dual language programs have not only succeeded in closing the achievement gap for English language learners (ELLs), but student academic achievement is at or above grade-level (Collier & Thomas, 2014). Academic language has been identified as a key factor in predicting students' academic success (Collier, 1995; Haneda, 2014), and how teachers understand academic language might affect their approach to instruction (Aguirre-Muñoz et al., 2008). There has been limited research in how a teacher makes sense of academic language within the context of language arts taught in both English and Spanish. This study explored a teacher's understandings of academic language, and how she connected her understanding of academic language in language arts within the context of an English and Spanish dual language program in order to provide insight on implementing meaningful and effective language and content instruction in a language arts classroom. Guided by Charmaz' (2006) constructivist grounded theory, ten teacher interviews were transcribed and analyzed. Van Lier and Walqui's (2012) language in action perspective provided insight on how students' ability to act was embedded at the core of a teacher's understandings of academic language. Findings indicated academic language is multidimensional and scaffolded students'
expression of agency. The implementation of sentence frames fostered amongst students the ability to participate in classroom activities while using academic language. Sentence frames are displayed for students, to scaffold oral and written communication about content (Levine et al., 2013). Data analysis suggested the need for further clarification in terms of the teacher's own pedagogical language knowledge (PLK) (Bunch, 2013), content knowledge, and Spanish academic language. The implementation of sentence frames restricted opportunities to engage in meaningful language learning activities; hence, minimizing both teacher and student’s expression of agency as they attempted to engage in classroom activities. The demand to prepare in-service and pre-service teachers qualified to meet the academic language and content need of students increases as the number of dual language programs surges across the nation. Initiatives designed to support dual language teachers’ preparation should consist of scaffolding teachers’ understanding of academic language, and how it works in specific academic disciplines.
The number of English language learners (ELLs) has steadily increased since 1990 by approximately 150 percent in schools across the United States whereas the overall student population has increased no more than 20 percent nationwide (Goldenberg, 2010). In 2012-2013, the ELL student population reached an estimated 4.4 million students (U.S. Department of Education, National Center for Education Statistics, 2015). Despite the increasing numbers of ELLs in U.S. schools, the school system has failed to determine and implement better ways to help ELLs attain successful academic outcomes (Editorial Projects in Education, 2009).

A report produced by the National Assessment for Educational Progress (NAEP) in reading and mathematics suggested the achievement gap for 4th- and 8th-grade ELLs is between 29 and 30 percent (National Center for Educational Statistics 2009a, 2009b; Leos & Saavedra, 2010). Another report found that both the fastest English-learners and native English speakers in elementary school have nearly identical scores on reading exams. However, by fourth grade, ELLs’ test scores were lower than their English-speaking counterparts. In subsequent years, the achievement gap only continues to widen (Gándara, Rumberger, Maxwell-Jolly, & Callahan, 2003).

Academic language has been described as that used to learn, negotiate, and produce knowledge in oral or written formats within the context of a particular academic setting (e.g., a science, social science, and math) (Anstrom et al., 2010; Bailey, 2007; Bunch, 2006; Galguera, 2011; Scarcella, 2003; Schleppegrell, 2004; Zwiers, 2007). Furthermore, academic language has been identified as a key factor in predicting students’ academic success (Bailey, 2007; Collier, 1995; Cummins, 2000, Wong
Fillmore, 2004). ELLs, in particular, are tasked with learning not only the language of instruction (i.e. English), but they also must learn content and vocabulary across all academic disciplines (Haneda, 2014). In order to gain insight into how a teacher understands academic language; in this particular study, academic language will be explored using van Lier and Walqui’s (2012) language in action perspective. According to Vygotsky (1978), language and cognition are closely intertwined. Vygotsky’s sociocultural theory suggests individuals develop their cognitive skills through interactions. Language then becomes a crucial component, and it is positioned at the core of all human interactions. van Lier and Walqui’s language in action perspective provides insight on how academic language is used as an “expression of agency,” that is, the ability to act in the classroom. The following sections will discuss the problem statement, the significance of the study, the epistemology, purpose of the study and the research questions.

**Problem Statement**

Galguera (2011) points out ELLs across the nation continue to score far behind their English speaking counterparts on most academic achievement measures. Therefore, multiple initiatives have been explored to narrow the academic achievement gap among ELLs in areas of reading and math. The increasing number of linguistic and culturally diverse students urges our current education system to consider alternative educational approaches designed to provide meaningful instruction to meet the academic needs of students who are growing up in a multilingual society. Evidence suggests well-implemented dual language programs provide an optimal learning academic environment for students learning a second language. Empirical studies indicate dual language programs have not only succeeded in closing the achievement
gap for ELLs; but academic achievement, for students participating in these programs, is at or above grade-level (Collier & Thomas, 2004; 2014). Academic language has been identified as a key factor in predicting students’ academic success (Bailey, 2007; Collier, 1995; Cummins, 2000, Haneda, 2014, Wong Fillmore, 2004). Research also points out that teachers’ understanding and knowledge as far as what is important about teaching and learning influences their teaching practices in the classroom (Aguirre & Speer, 1999; Borko & Putnam, 1996; Zohar, 2006). In addition, evidence seems to suggest how teachers understand academic language might affect how they approach academic language instruction in their classrooms (Aguirre-Muñoz et al., 2008).

Although extensive research has been conducted to explore the construct of academic language within the context of monolingual math (see Schleppegrell (2007); Berry & Kim (2008)) and science classrooms (see Bailey, 2007; Bruna, 2007; Peercy, 2011; Slater & Mohan, 2010), limited research as far as a teacher’s understanding of academic language within the context of language arts taught in both English and Spanish has been conducted. Thus, exploring this phenomenon in further detail could be significant in order to provide insight on how to implement meaningful and effective language and content instruction in a bilingual language arts classroom.

This study takes place within the context of a dual language program, in particular a two-way immersion (TWI) program. TWI programs are one type of Dual Language education. In TWI classrooms, native English speakers native Spanish speakers are grouped throughout the day and these students receive academic instruction (e.g., math, social science, and language arts) 50% of the time in English and 50% of the time in the target language (i.e., Spanish). TWI programs also feature
the 90/10 model. In the 90/10 model, students are instructed in the partner language (i.e., Spanish) 90% of the time, and 10% of the time in English during the first year or two. English instruction progressively increases each year until the 50/50 model is reached (Center for Applied Linguistics). TWI programs are designed to promote high levels of academic development for all students. They aim to address and reverse academic achievement deficits (Lucero, 2012). Evidence suggests that academic achievement for both groups in TWI classrooms will be at or above grade level (see Lindholm-Leary, 2001; Collier & Thomas, 2004, 2014; Thomas & Collier, 2002, 2012).

Two-way immersion (TWI) programs support learning academic language, content knowledge and effective academic instruction in a language that is familiar to the students creating an optimal instructional environment in order to foster students’ academic language development (Lindholm, 1991; Christian, 1996; Lindholm-Leary, 2001). These programs promote additive linguistic and cross-cultural environments with the goal of integrating students from heterogeneous linguistic and cultural backgrounds while aiming for high levels of bilingualism and biliteracy, grade-level academic achievement, and positive cross-cultural attitudes. From 2000 to 2012, dual language programs have increased nationwide from 200 to approximately 2000 (Mercuri, 2015).

**Significance of the Study**

Exploring a teacher’s understanding of academic language in context of a dual language program, in particular, a language arts classroom, may have significant implications on her efforts to provide effective and meaningful academic language instruction in both English and Spanish. Academic language has been largely explored in monolingual classroom settings, mainly in the context of two subject areas: science (see Bailey, 2007; Bruna, 2007, Slater & Mohan, 2010; Peercy, 2011) and math (see
Schleppegrell (2007); Berry & Kim (2008)). However, within the context of dual language programs, research on academic language has been mostly conducted to explore students' use of academic language, teachers' expectations about the role of academic language, and language demands of the program (Lucero, 2012). In addition, the literature has also discussed how teachers' ability to scaffold academic language learning for their students, particularly for ELLs, is influenced by a number of factors, including professional development and teacher training (Bowers et al., 2010).

Despite the importance of academic language development in the classroom, research on a teacher's understanding of academic language within the context of a dual language program (in particular, in the subject area of language arts) to date is narrow. Research not only suggests teachers' knowledge and understanding of what is important about teaching and learning influences their instructional practices (Aguirre & Speer, 1999; Borko & Putnam, 1996; Zohar, 2006), but there is evidence to suggest how teachers understand academic language might affect how they approach the instruction of academic language in their classrooms (Aguirre-Muñoz et al., 2008). Yet, only a few studies have explored teachers' understanding of academic language in a language arts classroom within the context of a dual language program. This study has identified a gap in the literature and seeks to address it by exploring a dual language teacher's understanding of academic language in a dual language-language arts classroom, and how she connects her understanding of academic language to classroom practices.

**Epistemology**

This case study subscribed to a constructivist epistemology. Realities are social constructions of the mind, and each individual brings along his/her own construction of
Constructivism explained how individuals construct meaning from the reality that surrounds them. Individuals make sense of knowledge through interaction (Vygotsky, 1978). Language plays a key role in all human interaction; therefore, it seems appropriate to use constructivism as the epistemology guiding this case study. Led by constructivism, this study explores how a dual language teacher constructs her understanding of academic language within the context of a bilingual language arts classroom. Constructivism allows the researcher to better interpret a teacher's understanding of academic language as she actively engages in pedagogical practices conducted in English and Spanish in a language arts classroom.

**Purpose of the Study**

This study explores a teacher's understanding of academic language, and how she connects her understanding of academic language in language arts within the context of an English and Spanish dual language program.

1. How does a dual language teacher understand academic language?
2. How does a dual language teacher connect her understanding of academic language to her classroom practices?
3. What similarities and differences, if any, exist in the teacher’s descriptions of academic language in relation to her classroom practices when teaching in Spanish and English?
4. What are the facilitators and constraints that a teacher identifies as influential on her understanding and teaching of academic language?

**Outline of the Dissertation**

Chapter 2 will provide a literature review of academic language and how it has been defined, investigated, and used in the literature, including how the term academic language register will be operationalized. The literature review will also include the existing body of research on academic language and dual language programs. In
addition, it will examine what the research articulates about teachers’ construction of knowledge, and how it influences their practices. Chapter 2 will discuss theoretical underpinnings of the study: Constructivism as the epistemology of the study, and van Lier and Walqui’s (2012) language in action perspective, along with, Bunch’s (2013) pedagogical language knowledge as the conceptual framework guiding this case study.

In Chapter 3, a rationale for choosing a case study and Charmaz’s Constructivist Grounded Theory will be provided. It will also describe in depth the process of data collection and data analysis. Chapter 4 will present the results of the study. Chapter 5 will discuss the findings and conclusions, and finally, Chapter 6 will provide the limitations, and implications for further research of this study.
CHAPTER 2
REVIEW OF THE LITERATURE

This review sought to identify existing research conducted on how academic language has been discussed in the literature. Constructivism, as the epistemological framework guiding this study, offered an understanding on how knowledge and knowledge about language—in particular academic language as it is understood by a teacher. van Lier and Walqui’s (2012) language in action perspective and Bunch’s (2013) pedagogical language knowledge have been used as the conceptual frameworks directing this study. Using both lenses, conceptual and empirical articles will be discussed to gain insight on how teachers construct and negotiate knowledge using academic language in classroom settings.

The first part will discuss the epistemological framework, the conceptual framework, and it will provide an overview of dual language programs. The second part will discuss how researchers in the field have conceptually defined academic language from a language proficiency perspective to a more functional perspective. In this section, three topics will be discussed in detail: register, systemic functional linguistics, (SFL) and language functions. Using pedagogical language knowledge and language in action as the lenses through which these studies will be explored, a deep understanding of the language features “central to the academic work in different content areas” is evident (Bunch, 2013, p.309). A closer look as to how register and SFL, as well as, language functions have been explored in the literature could provide insight on how academic language works in the classroom in order to scaffold a teacher’s expression of agency, that is, the ability to act while understanding and teaching academic language. The third part will discuss how researchers in the field have empirically
defined academic language. In this section, two topics will be discussed in detail: explicit language instruction and systemic functional linguistics as enacted in the classroom. Using language in action and pedagogical language knowledge as the analytical lenses through which these approaches are further explored, both SFL and explicit language instruction seem to foster amongst teachers and students the “ability to act” (van Lier & Walqui, 2012) in the classroom by allowing them to comprehend how linguistic features of spoken and written texts are negotiated during instruction.

**Epistemological Framework**

This qualitative study is grounded in a constructivist epistemology. Constructivism espouses the idea that a single or objective reality does not exist; on the contrary, reality is constructed by individuals while they participate in the process of acquiring and negotiating knowledge as they make sense of the world around them. Realities are then social constructions of the mind, and individuals design their own construction of reality (Almala, 2005; Guba & Lincoln, 1989). Constructivism offers a deeper understanding not only of teachers’ knowledge, but also of how teachers negotiate meaning around language; in particular, academic language. Research suggests teachers’ understanding and knowledge of what is important about teaching and learning influences their instructional practices (Aguirre & Speer, 1999; Borko & Putnam, 1996; Zohar, 2006). For example, Brownlee, Purdie, and Boulton-Lewis (2003) conducted a study with 29 pre-service teachers at an Australian University. Researchers found that pre-service teachers who understood learning as a meaning-making process were most likely to engage in “deep approaches to learning.” By critically engaging with these learning approaches, pre-service teachers were able to
construct well thought-out concepts in order to gain a deeper content understanding (Marton and Säljö 1976; Säljö 1979).

Brown et al., (1986) suggested patterns of knowledge acquisition mirror those of language acquisition. Both knowledge and language emerged from within a specific context. For instance, knowledge is generated by participating in meaningful social interactions mediated by culturally constructed materials and artifacts. Language is an essential part of these constructed materials and artifacts. As these meaningful interactions become more prominent, individuals internalize and negotiate meaning to further develop an array of cognitive skills. From a constructivist perspective, knowledge about language appeared when internal processes merge with the external reality. Language is not only constructed and negotiated through interaction, but it is also context-bound (Garcia, 1994). Constructivism allowed for an exploration how a dual language teacher understood academic language and how she connected her understanding of academic language in the classroom while teaching in English and Spanish. The teacher’s understanding of academic language will most likely emerge as she goes through an internal process of negotiation wherein multiple pieces of information make up a particular context (see Driscoll 2000; Mills et al., 2006).

**Conceptual Framework**

Two main conceptual lenses are used in this study, namely van Lier and Walqui's (2012) language in action perspective and Bunch’s (2013) pedagogical language knowledge. Teachers and students’ ability to act, that is, negotiate knowledge and present information using academic language in classroom settings, is at the core of both conceptual frameworks.
Language as Action Perspective

Leo van Lier and Aida Walqui’s (2012) language as action perspective considered language to be “a form of human action” which cannot be separated from all human interaction. This perspective viewed language as an “expression of agency” within a particular context. van Lier and Walqui defined agency as the “ability to act; this ability is context-bound; hence, what language is and what it does in the classroom takes on a slightly different meaning, that is, language becomes part of “larger systems of meaning making” (p.5). These researchers pointed out that an action-based perspective implemented in the classroom leads to language growth for those students who are engaged in meaningful activities. van Lier and Walqui’s language in action perspective echoes Vygotsky’s (1978) sociocultural theory. Vygotsky argued that individuals’ cognitive development is intrinsically intertwined with social interaction. Individuals acquire knowledge through interaction and view language as a tool to mediate understanding and meaning-making processes. These processes occur then while people interact with each other negotiating meaning, constructing, and producing new knowledge. When individuals receive and internalize new information, they self-monitor their actions and thoughts, creating different ways to understand complex cognitive skills. Within a sociocultural framework, language development ensues when it is carefully crafted and scaffolded by teachers in collaboration with students (see Bailey, 2007; Cummins, 2000; Bunch, 2006; Aukerman, 2007). In the classroom, a language in action perspective will foster significant and dynamic activities (e.g., projects, presentations, and investigations) designed to increase students’ learning interest and to promote language (van Lier & Walqui, 2012, p. 4).
Pedagogical Language Knowledge

In this particular study, pedagogical language knowledge provided insight on what teachers need to know about what language is and how it works within the context of a particular academic discipline. Evidence suggested that how teachers identified knowledge and understanding of what is important about teaching and learning influenced what they did in the classroom (Aguirre & Speer, 1999; Borko & Putnam, 1996; Zohar, 2006). Pedagogical language knowledge, according to Galguera, provided multiple opportunities for teachers to explore how language works in the academic contexts, and how it is used to convey knowledge in the classroom so that teachers are able to build a comprehensive understanding of language (Galguera, 2011).

Before further discussing pedagogical language knowledge, it is important to understand what Shulman’s (1987) pedagogical content knowledge means. It is “the blending of content and pedagogy into an understanding of how particular topics, problems, issues are organized, represented and adapted to the diverse interests and abilities of learners, and presented for instruction” (p.8). Shulman also identified “research on the content area, curriculum and textbooks related to the content area, and knowledge about how to teach the content area” (p. 307) as the sources teachers can use to support their understanding. For example, Gusthart and Sprigings (1989) examined how pedagogical content knowledge influences pre-service teachers’ learning experiences. They videotaped lesson plans and employed a systematic observation instrument during a three-week period. Their analysis focused on teacher dialogue, selection of tasks, opportunities to practice new skills, use of demonstration, and student attainment of learning outcomes. Researchers found that teachers who had
Shulman’s (1987) concept of pedagogical content knowledge has been applied to pedagogical content knowledge for language teachers. Pedagogical content knowledge for language teachers encompasses knowledge about the target language, linguistics, and second language acquisition. For example, Wong-Fillmore and Snow (2000) suggested that teachers should have access to language-related knowledge and skills that would allow them to foster opportunities where they see themselves as effective communicators, evaluators, and agents of socialization. In addition, Lucas and Grinberg (2008) pointed out that all teachers, especially those who are teaching English language learners (ELLs), should add linguistic knowledge as an important component of their pedagogical tools. Teachers should be able to provide meaningful instruction that would facilitate language and content learning for ELLs. Teachers should not only explore how language works and how it relates to second language acquisition, but also guiding ELLs to use their first language (L1) and second language (L2) skills as valuable tools. According to Valdés et al. (2005), teachers should understand that all students come into the classroom with knowledge which can be used as a resource. In addition, teachers should know how to facilitate “knowledge of disciplinary literacy” (i.e. to discuss ideas, to understand text, and to demonstrate learning) (p. 160).

Instead of continuing using pedagogical content knowledge for language teachers which is centered solely on a particular academic subject, Bunch (2013) suggested a different conceptual foundation. He argued that “the pedagogical language knowledge of mainstream teachers can be constructed as knowledge of language
directly related to disciplinary teaching and learning situated in a particular (and multiple) contexts in which teaching and learning take place” (p.307). Bunch’s pedagogical language knowledge approach did not move away from knowledge on second language acquisition; however, it placed knowledge, and how this information is shared with teachers in direct contact to teaching and learning as teachers are provided with multiple opportunities to analyze and reflect on language use. Bunch has identified some of the practices embracing the notion of pedagogical language knowledge: 1) focusing on linguistic features of texts and tasks using systemic functional linguistics, 2) integrating genre-based pedagogies with critical language awareness, and 3) sociocultural approaches apprenticing ELLs into academic practices. Dual language programs have been designed to serve language and academic needs of ELLs in academic content areas. Mainstream teachers who find themselves teaching content area subjects in dual language classrooms may need further support to develop pedagogical language knowledge. This study provided insight on how pedagogical language knowledge influenced a teacher’s understanding of academic language in a language arts classroom taught in both English and Spanish. The following section will provide an overview of dual language programs.

**Dual Language Programs**

Dual language programs are programs that provide academic instruction to all students using two language (i.e. English and the target language). Dual language programs seek to promote high levels of bilingualism and biliteracy, grade level academic achievement, and positive cross-cultural attitudes (Christian, 1996). Dual language programs aim to support the development of academic language and content knowledge, offering effective academic instruction in a language familiar to the students.
and creating an ideal environment for students’ development of their academic and language skills (Lindholm, 1991; Christian, 1996; Lindholm-Leary, 2001). Two-way immersion (TWI) program is a distinctive modality of dual language programs, and it features a balanced number of native English speakers and native speakers of the target language (i.e., Spanish) in the classroom. These students are grouped together during core academic instruction (e.g., math, social science, and language arts) thus promoting a linguistic and cultural integrated classroom environment. TWI programs provide 50% of instruction in English and 50% of instruction in target language (i.e., Spanish). TWI programs can also feature a 90/10 model. In the 90/10 model, students are instructed in the partner language (i.e., Spanish) 90% of the time, and 10% of the time in English during the first year or two. English instruction progressively increases each year until the 50/50 model is reached (Center for Applied Linguistics). TWI programs are designed to promote high levels of academic development for all students. Evidence suggests that academic achievement for both groups in TWI classrooms will be at or above grade level (see Lindholm-Leary, 2001; Collier & Thomas, 2004, 2014; Thomas & Collier, 2002, 2012).

Dual language programs have been designed as an alternative way to provide effective instruction for English language learners and native-English speaking students integrating students from heterogeneous linguistic and cultural backgrounds in one learning environment. Hence, Spanish-speaking students and English-speaking students, learning a second language in the classroom, (i.e., English and Spanish respectively) are able to transfer language skills they have already acquired in their first language (L1) onto their second language (L2) provided that there is optimal exposure
and motivation for learning (see Cummins, 1981). Cummins’ (1986) theory of common underlying proficiency (CUP) indicates that literacy skills students acquire in their first language (L1) foster and promote transfer of language skills onto students’ second language (L2) (see Freeman & Freeman, 2004). Hence, language skills taking place in one language will transfer with positive effects onto the other (Cummins & Mulcahy, 1978; Troike, 1978). Cummins suggested that providing adequate exposure and motivation in both languages (i.e., English and Spanish) can promote the “development of the proficiency underlying both languages” (p. 25). Cummins suggested language transfer is important in order to successfully implement a TWI program. In a TWI classroom, students are learning academic content in both languages, they are being exposed to language skills in both languages, and they are provided with multiple opportunities to develop skills that would allow them to compare and contrast both languages. Research conducted on dual language programs shows student academic achievement at grade-level and/or above grade-level. Evidence showed well-implemented dual language models can close the achievement gap (Collier & Thomas, 2004; 2014; Thomas & Collier, 2012). The following section will discuss how the literature has defined academic language.

**Understanding Academic Language**

The following section discusses: 1) how Cummins’ definition of academic language has shifted in recent years. Cummins’ work on academic language opens this section because his framework (i.e. BICS and CALP) has proven to be crucial in framing the conversation around how to implement second language instruction for ELLs in our schools. Additional discussion includes 2) how academic language has been defined and operationalized in the literature, and 3) how academic language has
been used to explore conceptual articles as well as empirical articles. The purpose of this section is to provide background knowledge on the multiple definitions of academic language found in the literature.

**Academic Language—Jim Cummins’ Definition**

Cummins’ (1986) Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP) framework elaborated on the notion of language proficiency and how it is enacted under two different circumstances (i.e. context-embedded and context-reduced). Cummins’ theoretical framework aimed to explain two issues: 1) to incorporate a developmental perspective to the language acquisition processes of both native English speakers as well as ELLs (English language learners), and 2) to identify aspects of communicative proficiency acquired by native English speakers and ELLs. These aspects can be differentiated from those found in different individuals during their own language development process. His framework discusses the differences between the language demands occurring within the context of a classroom setting and those emerging from interpersonal communicative skills used mainly outside school and/or in other areas. Cummins (1981, 1984, 1986, & 1994) suggested that language taught using contextual cues is easier to acquire than language not supported by any type of contextual cues. He suggested that context-embedded communication allows speakers to engage in communication by negotiating multiple clues (e.g., cues, gestures, and intonation). On the other hand, context-reduced communication embodies linguistic messages which are elaborated explicitly with limited context (e.g., phone conversations, presenting the findings of a study, taking a subject area exam). It is important to note, according to
Cummins, context-embedded communication and context-reduced communication do not represent a dichotomy but rather a continuum within the linguistic spectrum.

Critics of BICS and CALP note that describing academic language as cognitively demanding, explicit or decontextualized language fails to recognize the sociocultural dimension of how language works in a classroom environment. Cummins' BICS/CALP model has faced the following criticism: 1) it is almost impossible to disassociate language ability and academic achievement; 2) it fails to take into account key differences between first and second language development; and 3) it ignores the sociopolitical context of schooling by underscoring language demands focusing on proficiency and academic achievement and promotes the language of educated classes (MacSwan & Rolstad, 2003). MacSwan and Rolstad (2003) point out, “although the language used in school may be different in some aspects from the language used in other contexts, it is neither better nor has the effect of improving children’s overall language. Schooling has the potential to change our language, but “the results are different, not more complex” (MacSwan & Rolstad, 2003, p.333).

In response to criticisms, Cummins (2000, 2014) revisited his ideas on CALP and described academic language as decontextualized language (i.e. context-reduced language) students are required to master in order to be considered capable of participating in different academic activities. For example, reading texts that lack pictures or other semiotic cues (e.g., novels, textbooks, lab-reports); elaborate abstract answers (e.g. “Before discussing X, it will be useful to define Y,” “This paper examines,” “In conclusion”); and address unknown audiences in written and/ or oral formats (e.g., writing letters for a particular purpose, writing a research papers, persuasive essays).
Cummins (2000) suggests that academic language is a sum of vocabulary (e.g., prokaryotic, chlorophyll, chloroplast); grammatical constructions (e.g., sentences, lexemes, phrasal verbs, phrasal structures); and language functions (e.g., describing processes, comparing and contrasting ideas, classifying objects) that students are required to understand and manipulate within the academic context of the classroom. Students who are able to use and reproduce the academic language skills previously described will be able to engage in context-reduced texts and discussions. Cummins explains that academic language instruction should be centered on meaning-making, language instruction, and language use so that students can manipulate academic language in the classroom by using oral and written formats. According to Cummins (2014) the focus in schools has been on expanding students’ understanding of academic language, scaffolding meaning, and activating background knowledge (p. 146). He suggests that when opportunities for literacy engagement are maximized, not only academic language is taught explicitly across the curriculum, but students’ comprehension and language production are also scaffolded across the curriculum.

**Conceptually Defining Academic Language**

This section provides an overview of how academic language has been defined and operationalized in the literature. According to Haneda (2014), academic language lacked an agreed-upon definition, therefore, this section provides insight on how academic language has been described in the literature in order to present a better understanding of this construct.

Research on academic language has largely focused on how it is defined (see Anstrom et al., 2010; Aukerman, 2007; Bailey, 2007; Cummins, 1979, 1986, 2000; Scarcella, 2003; Schleppegrell, 2004). Recent scholarship has paid a great deal of
attention to the relationship between academic language and language functions from a systemic functional linguistics (SFL) perspective (see Brisk, 2011; Slater & Mohan, 2010; Shin, 2009; Walker, 2010). Other studies have been able to identify how much time teachers spend teaching academic language (see Brooks & Thurston, 2012; Ernest-Slavit & Mason, 2011). To a lesser extent studies have been able to provide some strategies to teach academic language (see Bruna et al., 2007; Peercy, 2011). For example, Gebhard and Willet (2008) described academic language as being different from social language in very explicit and substantial ways. Gebhard and Willet pointed out social language features vocabulary used more often than not during daily activities. Researchers indicated social language uses simple sentences whereas academic language uses complex sentences in order to convey a greater amount of information. Bailey (2007) defined academic language as the language of school suggesting that students tend to be perceived as academically proficient when they are able to use general and/or content specific vocabulary, complex grammatical structures, and multiple language functions and discourse structures for different academic purposes.

Scarcella (2008) defined academic language as the language of school. Scarcella’s definition of academic language includes both “literate language” pertaining to complex and cognitively higher language skills and language that highlights students’ cultural and experiential knowledge. Scarcella suggested students need to have access to: foundational knowledge of English and essential academic language (EAL), and SNL (school navigational language). The latter is used to communicate broadly with teachers and peers in the classroom. On the one hand, foundational knowledge of English refers
to the basic skills English language students use to communicate in and outside the classroom. On the other hand, essential academic language refers to all the essential features of academic language used across all content areas. Examples of these academic words include general words used across academic disciplines, technical words used in academic fields, and non-technical academic words used across multiple disciplines. Scarcella points out that students should understand how academic words are formed by the use of prefix, suffix, and roots. Additionally, essential academic language refers to understanding how to use complex sentence structures such as knowledge of the grammatical co-occurrence restrictions governing words and use of a reference system of pronouns and comparatives. Other specific knowledge includes the way certain discourse features are used in specific academic genres, the use of devices as transitions, and other organizational signals, seeing relationships, and following logical lines of thoughts. Galguera (2011) defined academic language to include its use for specific academic purposes. Zwiers (2007) defined academic language using terms such as academic capital or specialized registers shaped both by school and home factors. It has emerged as distinctive from the vocabulary, syntax, and discourse features of conversational language, which are considered less abstract. The following sections will further explore register, systemic functional linguistics, and language functions as they relate to academic language.

**Academic Language—Register and Systemic Functional Linguistics**

This section will discuss how register and systemic functional linguistics relate to academic language while using pedagogical language knowledge as the lens through which these studies will be analyzed. It explores the definition of both register and
systemic functional linguistics (SFL) as concepts that could influence teacher practices as far as how to analyze language.

**Register**

A register describes patterns in communication use given a particular setting and when used for specific purposes (Ogrady et al., 1989). Several scholars argued that academic language can be viewed as the register of school. Anstrom et al. (2010), for example, referred to “academic English” as a variety of English, as a register or as a style commonly used in the classroom context. Schleppegrell (2001) suggested there is a particular discourse pattern associated with a specific academic area. According Anstrom et al. (2010), the academic language “associated with reading, writing, and talking about science is not the same as the language associated with reading and writing and discussing mathematics” (pg. 1). Academic language has been explored mainly in the context of two subject areas: science (see Bailey, 2007; Bruna, 2007, Peercy, 2011; Slater & Mohan, 2010) and math (see Schleppegrell (2007); Berry & Kim (2008)). For example, in the context of math, Schleppegrell (2007) identified two features of classroom mathematics registers: multiple semiotic systems and grammatical patterns. The former refers to mathematics symbolic notations, oral language, written language, and graphs and visual displays. The latter refers to technical vocabulary (i.e. rational numbers and bivariate data), dense noun phrases (i.e. adding fractions), being and having verbs (i.e., “is” represents the equal sign), and conjunctions with technical meanings (e.g., if, when, and therefore). Awareness of how multiple registers are used in the classroom facilitates our understanding of systemic functional linguistics, as an approach that could help teachers understand how the linguistic features of oral and written texts work in the classroom.
**Systemic functional linguistics**

This section discusses the conceptual underpinning of Systemic Functional Linguistics (SFL). Bunch (2013) views SFL as a teacher preparation practice which comes close to developing teachers’ skills in terms of pedagogical language knowledge. SFL “provides teachers with the tools to analyze the language features central to academic work in different content areas” (Bunch, 2013, p.309).

Schleppegrell (2004) examined how teachers and students’ grammatical and lexical choices are situated within the context of language use. SFL observes that language variations occur as a result of the language choices users make regarding field—what is talked about, tenor—the relationship between speaker/hearer or writer/reader, and mode—how a particular text should be organized. Language can be used in multiple ways; hence, teachers should not only focus on content, but also on how language choices are associated with the content to facilitate text comprehension or any form of communication. While using SFL, the pedagogical language knowledge mainstream teachers should have highlights an understanding of the grammatical features of texts used in a specific academic discipline. Teachers should also understand how to scaffold this information for their ELLs within the context of the subject they teach (Bunch, 2013).

While Halliday’s (1985) concept of SFL offered a different lens which can be used to increase our understanding of academic language, it is not without limitations. Tak Siew Bek argued that Halliday’s SFL ignores the social dimension of language. It overlooks the diverse nature of individuals and how they use language for specific purposes. Using this lens, the shifting nature of language becomes subservient to fixed codes and conventions used to produce and consume the meanings of texts.
Furthermore, language users are left to choose a pre-established language option that has already been constructed in relationship to the particular context of the text and discourse patterns are constructed within “the social context that it is strictly linked to the function of the text” (Tak Siew Bek, 1999). Language is constantly evolving, and it should not be confined to pre-set discourse patterns.

**Academic language—Language functions**

In the previous sections, context played a crucial role while exploring the concepts of register and SFL (i.e. academic language taught within a particular context). In this section, context also plays a pivotal role as far as how language functions are used in the classroom and for which purposes. A way of embedding language functions during classroom instruction is to implement language objectives. The sections below will discuss both language functions and language objectives.

Language functions refers to the language associated with specific academic tasks and used for specific academic purposes (Bailey, Butler, Stevens, & Lord, 2007). Halliday (1978) identifies seven different language functions: instrumental (i.e. meeting needs), regulatory (i.e. controlling others’ behavior), informative (i.e. communicating information), interactional (i.e. establishing social relationships), personal (i.e. expressing individuality), heuristic (i.e. investigating and acquiring knowledge), and imaginative (i.e. expressing fantasy or possibility). Any classroom setting will require students to learn to use different academic functions (e.g., reporting, evaluating, questioning, and critiquing). Other functions may be learned as well, such as making excuses, interrupting, arguing, and demanding. Diaz-Rico (2008) suggested that students should be able to understand how to use language functions to increase their communicative competence in both oral and written formats (p.30). For example,
Gottlieb and Ernst-Slavit (2014) compared and contrasted the academic language functions explicit in the Common Core State Standards (CCSS) in both language arts and science. For example, in language arts, students should be able to compare and contrast themes, two versions of the same story, texts in the same and different genres, structure of two texts, whereas, in science, students should be able to compare and contrast the effects of different strengths or different directions, life in different habitats, and multiple solutions. In terms of language functions, students need to master the skills mentioned before to be successful in the classroom. Chamot and O’Malley (1996) suggested teachers can enhance students’ academic language development by teaching them how to manipulate specific academic tasks commonly found in the classroom (e.g., listening to explanations, reading expository and discipline specific texts, answering questions about academic subjects, writing reports and summaries, and promoting creative writing). A way of incorporating teaching language functions in the classroom is by writing and modeling language objectives. The following section will briefly discuss language objectives.

**Academic language—Language objectives**

Research in the field of second language acquisition has identified the need to develop content as well as language objectives while writing lesson plans (see Chamot, 1984; Thomas & Collier, 1997; Cummins, 2000, Clancy & Hruska, 2005; Donnelly & Roe, 2010). Designing and implementing meaningful content objectives provides students with a framework that would allow them to not only identify, but also clarify critical information they need to learn during the implementation of the lesson plan. On one hand, content objectives help students zero in on specific details of the lesson. Language objectives, on the other hand, allow students to have access to the academic
language needed not only to participate in the lesson plan activities, but also to develop “vocabulary, language structures, and cognitive language necessary to perform well in school” (Herrera & Murry, 2011, p. 285; see table 2-1).

According to Lucas and Grinberg (2008), designing language objectives requires teachers to recognize and understand the forms, mechanics, and uses of language. It also promotes teachers’ understanding of the basics of the language (Gándara et al., 2005; Valdés et al., 2005; Wong-Fillmore & Snow, 2005). To write adequate language objectives, teachers should be able to identify their ELLs’ L2 language proficiency level—receptive as well as productive skills—to suitably address their ELLs’ linguistic needs by “not being at a level too high for their current understanding” (Echevarría et al., 2008, p. 28). Further, teachers should identify what their ELLs need to learn about the academic language of their content area (e.g., science, social science, and math) so that they can perform the academic tasks required during instruction.

**Empirically Defining Academic Language**

Empirical articles have discussed two main topics while exploring academic language: 1) systemic functional linguistics, and 2) the need for explicit language instruction. Using van Lier and Walqui’s (2012) language in action as the analytical lens through which these approaches are further explored, both SFL and explicit language instruction foster amongst teachers and students the “ability to act” (van Lier & Walqui, 2012) in the classroom by allowing them to comprehend how linguistic features of oral and written texts are negotiated during instruction. The following empirical studies discuss how these two approaches have been used in different contexts.
Academic language—Systemic functional linguistics

In this section, SFL has been further explored to scaffold amongst teachers and students the ability to act in the classroom. These articles explore students and teachers’ use of academic language in academic settings using SFL as an approach to help them analyze language features crucial in academic work. Aguirre-Muñoz et al. (2008) and Slater and Mohan (2010) examined academic language using an SFL approach from a teacher’s perspective, that is, how do teachers use SFL in the classroom. Walker (2010) examines academic language using an SFL approach while analyzing student-written texts.

Aguirre-Muñoz et al. (2008) used SFL to enhance teachers’ understanding on how to implement academic writing instruction for ELLs. Researchers argue SFL could be used as a tool to support the instruction of academic language because it deconstructs linguistic structures, making academic language clear and accessible for ELLs. Aguirre-Muñoz et al. (2008) used field, tenor, and mode to analyze stories students read in middle school using these stories as prompts to implement professional development. Aguirre-Muñoz et al. (2008) used field to describe protagonist and antagonist events. They used tenor to explore the link between qualities and characters, and mode to analyze the text’s cohesiveness and consistency (p.300). Researchers developed four professional development sessions (PD) to provide teachers instruction on the genre-based approach while implementing teaching response to literature writing. Researchers used field, tenor, and mode as the building blocks to organize each module. Teacher analysis of students’ writing demonstrated there was improvement as far as recognizing the strengths and weaknesses related to field, tenor, and mode features of expository texts. Aguirre-Muñoz et al. (2008) point out
that teachers’ efforts were evident while developing students’ linguistic resources, increasing access to meaning within content, and employing the text-analysis tools learned while in training (p. 312). After conducting pre- and post- interviews, teachers’ comments on instructional practices in relationship to the implementation of field and mode show a significant increase; however, data show the concept of tenor was not fully grasped after the training session. Approximately one third of teachers who assisted the training sessions did not implement any of the strategies discussed in the PD sessions at all. Teachers’ failure to implement these strategies may be attributed to inadequate learning structures set in place within the school.

Slater and Mohan (2010) employed register analysis using a SFL perspective to demonstrate “how an ESOL teacher uses the same content area task as a cooperating science teacher in order to provide a theory-practice cycle similar to that of a science teacher” (p. 91). Slater and Mohan (2010) used science lessons prepared the science teacher and the ESL teacher. Their study was set in a high school in Western Canada with a population of 1500 students. The science class had 30 students—14 boys and 16 girls. The teacher featured in this study taught native English speakers and ELLs who have been mainstreamed. The ESL science classroom had 20 students—15 boys and 5 girls. Her students’ linguistic background was diverse.

The researchers used two excerpts of classroom discourse illustrating how the science and ESL teacher teach taxonomy and cause and effect to their students. They compared both excerpts describing how both teachers use their knowledge of the genre and register of science—two concepts rooted in SFL—in order to inform their instruction. Slater and Mohan (2010) suggest both teachers used concepts of genre and
register in their science classrooms to support ELLs’ language learning processes. This approach seemed to facilitate science and language teaching. Understanding the requirements of the content area register fosters ample opportunities for ELLs to access content area knowledge.

Walker (2010) explored SFL analysis of variation using scientific texts. One was written by a proficient English speaker, and the other one, by an ELL. Walker looked at what these texts can tell bilingual educators about students senior secondary entry-level CALP. In addition, they were seeking to find out to what extent these analyses inform the planning of subsequent CAL (cognitive academic language) in the content area. Walker uses two different texts for analysis. The first text was elaborated by the author herself and a science-education specialist. The second text was written by a 16 year old student who spoke Cantonese and Chinese, and has been taking English classes for 10 years. In Hong Kong Special Administrative Region of China (HK), tertiary level lectures, assessment, and textbooks are in English. Student’s text and experts’ texts were gathered from the CALP test (see Chow et al., 2004) taken by more than 400 students. This particular test item asked students to select: “a suitable alloy for making the warship and another for making a window” (Walker, 2010, p. 78). The test item required students to indicate their reasons for their choices. According to Walker (2010), this test item provides a good example of a question evaluating students’ higher order thinking skills. Walker (2010) pointed out that the model of SFL describes the architecture of the text providing an analytical framework that allows for the comparison and contrasting both samples of academic writing (i.e. experts and student’s writings). Walker (2010) suggests that any text is always about something, addressed to
someone; with an organized sequence of discourse (p. 78). Hence, speakers or writers can choose from a variety of linguistic options that are combined to convey the following meanings: Experiential meaning-making, interpersonal meaning making, and in textual meaning making (Walker, 2010, p. 82). Walker (2010) found that using SFL as the architecture of the text enabled her to identify and analyze areas where students’ academic writing skills needed to improve. Comparing both texts has the potential to diagnose linguistic, cognitive, and content weaknesses. In addition, this type of analysis may identify critical instances of inappropriate linguistic and content variation that may require further instruction.

**Academic language—Explicit language instruction**

The empirical articles identified in this section identified academic language as the language students are required to learn to engage in academic oral and written formats for the purpose of classroom instruction. All three studies reviewed in the following section conveyed the idea that teaching academic language while only highlighting academic vocabulary instruction prevents students from fully engaging in oral and written classroom interactions which are linguistically rich and meaningful. Researchers suggested that academic language instruction should involve all linguistic features needed to make sense of the concepts taught.

Bruna et al. (2007) suggested the language science teachers use in the classroom influences how and what students learn. Bruna et al. (2007) explored the use of semiotic formations (i.e. choices students make while constructing meaning) when teaching academic language in a science classroom. This case study reported on how a science teacher mediated the didactic tension of effectively teaching science content instruction and the language forms (i.e. semiotic formations) to ELLs in a 9th grade
science classroom. The study suggested teaching only vocabulary creates artificial learning environments wherein students will not be able to engage in meaningful discursive practices. Furthermore, researchers pointed out that effective academic language instruction depends potentially on what teachers understand as academic language. Emphasis on vocabulary instruction only, prevented students from understanding how language works in the classroom to represent complex ideas. In addition, teachers may not provide students with enough opportunities to engage with the language needed to explain scientific relationships which are at the core of science instruction (p.51).

Kelu (2013) suggested teachers who used a “rich feature analysis” approach promote students’ awareness of the different levels of complexity among sentences. It highlights linguistic features that provide an understanding of the “relationship between a text and its context” (Barton, 2004, p. 67). Kelu stated, “students’ understanding of the differences between spoken and written language is likely to increase their awareness of making appropriate linguistic choices to meet the demands of particular contexts, and finally to promote their academic writing” (p.26). Kelu discussed how a rich feature analysis may help teachers guide their students to understand the use of conjunctions (e.g., however, while, and then); nominalizations (e.g., building of houses, employment opportunities, and a great deal of debate), and personal pronouns (e.g., we all must support, I am sure, and I support) in order to help students develop their written academic skills. Rich feature analysis shows how predominant linguistic features are used across multiple texts to create a function, meaning, and significance that delineates the context of the text.
Shin (2009) explored how the analysis of complex grammatical structures and linguistic patterns are used to enhance students’ academic language in the classroom. Shin’s work (2009) draws students’ attention to structural practices of “formal English” by using stories found in magazines (e.g., Times and The Economist). Shin explores how presenting students with opportunities to engage in sentence-combining practices (i.e. teaching students how to construct sentences which are more syntactically complex) “promotes secondary ELLs’ development of academic English skills” (p. 394). Some of these linguistics patterns turned out to be difficult to understand for ELLs; hence, focus-instruction was required. Shin concentrated on difficult grammatical features using mini-lessons. Thirteen sets of sentences were used throughout all four sessions. Instruction sessions were audio-recorded and their work was collected to be further analyzed. Audio-recordings were transcribed and analyzed along with students’ written responses. Students elaborated on how they work on sentences-combining practices. After students discussed their grammatical choices, the researcher provided feedback to her students elaborating explicitly on how to better craft their sentence of choice. Shin found that her students benefited from direct instruction of grammatical structures. Students with a stronger command of the English language were able attempt multiple sentence combination in order to construct meaning. The students developing their understanding, however, were often confused, especially with longer sentences conveying multiple subordinate/co-ordinate constructions (p. 401).

**Summary**

Research suggested teachers’ knowledge and understanding of what is important about teaching and learning, influences instructional practices (Aguirre & Speer, 1999; Borko & Putnam, 1996; Zohar, 2006); in addition, there was evidence
indicating how teachers understand academic language might affect how they approach the instruction of academic language in their classrooms (Aguirre-Muñoz et al., 2008). Using van Lier and Walqui’s language in action perspective, and Bunch’s pedagogical language knowledge to discuss register, systemic functional linguistics, and language functions offered insight on what teachers need to know about language. It also provides insight on how teachers may foster the ability to act in the classroom while using academic language given a particular content-area with the purpose of integrating language and content instruction in the classroom. These articles implied that a deeper understanding of the concepts explored may provide insight on how teachers could transform their practices for teaching academic language in the classroom. In terms of teaching practices, using van Lier and Walqui’s language in action perspective, and Bunch’s pedagogical language knowledge provided insight into how systemic functional linguistics and explicit language instruction are used as instructional tools by teachers and students alike. These instructional tools helped them understand and manipulate academic language in the classroom.

In the literature, the role of context has been identified as a key factor in how teachers construct their understanding of academic language. Studies reviewed in this chapter have largely explored how teachers use academic language within monolingual contexts; in particular, in the content-areas of math (see Schleppegrell (2007); Berry & Kim (2008)) and science (see Bailey, 2007; Bruna, 2007; Peercy, 2011; Slater & Mohan, 2010). Only a few studies have explored academic language within the context of language arts, and there is need for further research on this topic. This study attempts to address the following gap in the literature by exploring a dual language
teacher’s understanding of academic language in a language arts classroom within the context of a dual language program, and how she connected her understanding of academic language to classroom practices (see Figure 2-1).

Glossary

**Academic Language:** Academic language is often referred to as the language of schooling. It can be divided into 4 categories: 1) oral academic language exposure; 2) written academic language exposure; 3) oral academic language production; and 4) written academic language production (Bailey, 2007).

**Academic English (AE):** A part of overall English language proficiency which also includes more social uses of languages both inside and outside the school environment (Anstrom et al., 2010, p. iv).

**Academic Language Use:** The ability to use language to do things such as describe complexity and abstractions, use figuratively expressions, be explicit for different audiences, and use evidence to support arguments (see Galguera, 2011; Zwiers, 2008).

**BICS (Basic Interpersonal Communicative Skills):** as supported by “meaningful interpersonal and contextual cues” (Cummins, 1979).

**CALP (Cognitive Academic Language Proficiency):** Students’ skills to use and produce language related to various academic demands (Cummins, 1979).

**Interdependence Hypothesis (Transfer):** To the extent that instruction in Lx (L1) is effective in promoting proficiency in Lx (L1), transfer of this proficiency to Ly (L2) will occur provided there is adequate exposure to Ly (L2) (either in school or environment) and adequate motivation to learn Ly (L2) (Cummins, 1981).

**Language Function:** The purposes for which language is used to communicate (Gottlieb & Ernst-Slavit, 2014).
**Language Objectives:** Specified observable language outcomes designed for individual lessons and often differentiated by students’ levels of language proficiency (Gottlieb & Ernst-Slavit, 2014).

**Metalinguistic Awareness:** The understanding and expression of the nuances and uses of languages, including the process of reflecting upon its features and forms (Gottlieb & Ernst-Slavit, 2014).

**Register:** Refers to patterns in communication use in a particular setting for specific purposes. Register is often an indicator of the formality or official nature of an occasion or a mark of authority (Ogrady et al., 1989). A variety of language defined according to its use in social situations (Crystal, 1991).

**Sentence Frames:** Sentence frames are displayed for students, to scaffold oral and written communication about content. Sentence Frames are sentence structures with the content words eliminated. They are useful for ELLs, because they provide an academic sentence structure that allows students to focus on stating the content while practicing sentence patterns. Sentence frames are used to scaffold for specific linguistic patterns. In this study, the teacher writes the sentence frames, models them for students, and creates opportunities to practice them (Teaching and Vocabulary Teaching Strategies) (Levine, Lukens & Smallwood, 2013).

**Task:** Two or more related instructional activities that generally involved multiple modalities or language domains (e.g., research report requires reading and writing, often with the use of technology) (Gottlieb & Ernst-Slavit, 2014).

**Scaffolding:** It provides support so that learners can progress beyond their current level of development with guidance from others (Daniel et al., 2015). Scaffolding can
encourage students to attend to the task, simplify it, keep them engaged in completing it, and limit their frustration (Donato, 1994).

**Systematic Functional Linguistics (SFL):** A theory of language evolving around the notion of language functions. It not only accounts for the syntactic functions of language, but it positions the functions of language as a key component to the theory, in other words, what language does, and how it does it. SFL is framed by social context, and analyzes how language is shaped by its social context (Halliday, 1985).

**Style:** The form in which an individual uses language. It refers to the way most people use language given a particular context. The level of speakers’ formality. Speakers can choose to speak formally or informally (Crystal & Davy, 1969).

**Two-Way Immersion Programs (TWI):** A dual language program in which both native English speakers and native speakers of the partner language are enrolled, with neither group making up more than two-thirds of the student population (Center for Applied Linguistics).
### Table 2-1. Academic language learning objectives and their definitions.

<table>
<thead>
<tr>
<th>Key vocabulary</th>
<th>Technical terms, concept words, and other words needed to discuss, read, or write about the lesson’s topic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language functions</td>
<td>The way students use language within the lesson. Students may be required to compare/contrast, summarize, analyze, and describe.</td>
</tr>
<tr>
<td>Language skills</td>
<td>Reading, writing, listening, and speaking skills students need to develop.</td>
</tr>
<tr>
<td>Grammar or language structures</td>
<td>These may include questions, patterns, verb tenses, pronoun usage, sentence formation, adjectives, and the use of suffixes and prefixes, and other linguistic structures.</td>
</tr>
<tr>
<td>Lesson tasks</td>
<td>Language which is embedded in a lesson assignment.</td>
</tr>
<tr>
<td>Language learning strategies</td>
<td>This may involve corrective strategies, self-motivating strategies, or language practice strategies.</td>
</tr>
</tbody>
</table>

Note: Adapted from Short, Hudec, & Echevarria (2002).
Figure 2-1. A visual representation of the conceptual frameworks guiding this study.
CHAPTER 3
RESEARCH METHODS

The purpose of this case study was to explore a dual language teacher's understanding of academic language in a language arts classroom, taught in both English and Spanish, and how she connects her understanding of academic language to her classroom practices. A case study methodology (Baxter & Jack, 2008) has been used in this study. A case study facilitates a deep exploration and a thick description (Guba and Lincoln, 1981) of the phenomenon studied. This phenomenon becomes the bounded system (Smith, 1978), and it is identified as the focus of the investigation, in other words, a case study is a deep examination of a specific phenomenon. Case study would allow the researcher to carefully explore and describe how the participant makes sense of academic language.

For the purpose of this study, the researcher used Yin’s (2003) descriptive approach. A descriptive case study is used to thoroughly describe how a dual language teacher understands academic language within a language arts classroom taught in both in English and Spanish. My case study is based on a single case of a teacher who allowed me to explore her understanding of academic language. It is a descriptive approach because it explores a teacher’s understanding of academic language as it occurs in a language arts classroom within the context of an English and Spanish dual language program (pg. 258). According to Yin (1984), a case study is designed for specific situations where the event to be explored is closely related to its context (i.e. a language arts classroom in a dual language program). This chapter addresses four research questions:

1. How does a dual language teacher understand academic language?
2. How does a dual language teacher connect her understanding of academic language to her classroom practices?

3. What similarities and differences, if any, exist in the teacher’s descriptions of academic language in relation to her classroom practices when teaching in Spanish and English?

4. What are the facilitators and constraints that a teacher identifies as influential on her understanding and teaching of academic language?

**Participant Selection**

The participant for this study was chosen through a criterion-based selection (Patton, 2001, p. 238). This study used the following criteria: First, the participant has at least 5 years of teaching experience and at least 1 year of teaching experience in the dual language program. Researchers have found that years of experience between the first couple of years in the classroom show a positive relationship with student achievement in the area of mathematics and reading at the elementary and middle school level (see Cavalluzzo, 2004; Hanushek et al., 2005; Rockoff, 2004). Clotfelter, Ladd, and Vigdor (2007) suggest teachers’ experience has a positive effect on students’ academic achievement. Students accomplish more than half of the gains during the teacher’s first few years, however considerable gains take place in the following years but at a much lower rate. Second, the participant teaches language arts in a dual language program using both English and Spanish in order to identify similarities and differences, if any, while teaching academic language in two languages. Third, the teacher teaches in upper elementary levels (i.e., grades 3-5). I believe that academic language instruction is better observed in upper elementary levels, and since these are grades where standardized testing is administered, academic language instruction tends to be more explicit in the classroom. Fourth, as a dual language teacher, the
participant took part in a year-long professional development on language objectives and academic language.

Participant Description—Carla

Carla (a pseudonym) was born in Texas to Mexican parents. She grew up speaking both English and Spanish. At home, she grew up speaking Spanish to her parents, and English to her sister. Carla and her sister would code-switch (i.e. using both English and Spanish during conversation). Carla identifies Spanish as her first language, and she mentions learning English while attending school. In terms of language proficiency levels, in English, Carla is at the Formerly Limited English Proficient/ Now Fully English Proficient level. Carla was classified as an ELL as she entered elementary school; however, she is now fully English Proficient. She reads, writes, speaks and comprehends English within academic classroom settings. In Spanish, Carla is at the Advanced level. She understands and speaks conversational and academic Spanish well. Carla is near proficient in reading, writing, and content area skills needed to teach; however, she requires the occasional support (Wisconsin Department of Public Instruction).

In Texas, Carla received bilingual education in elementary school. As she grew older, English became her dominant language. Carla went to college in the USA; she aspired to become a teacher and influence students’ lives in a positive way. Carla points out, “to me, teachers were a huge role model in my life because I guess the way you live at home is different, and I guess teachers have, I don’t know, just a different view, and I don’t know, to me they were just a role model so I wanted to have the same sort of influence in another child” (Interview 1, intake interview). Carla finished her Bachelor’s degree in Elementary Education with an ESOL endorsement at a local university and
started her career as a bilingual teacher in Texas. To teach in Texas, Carla needed to pass two exams. One exam was to acquire her Bilingual Certification, and the other was to evaluate proficiency in Spanish, “the one I took was more just a proficiency test like making sure you know and it was more like an oral just listening and speaking test, actually when I left they switched the test and they went to doing both, they did oral like speaking and listening and also written they added that part” (Interview 1, intake interview).

Carla chose elementary education because she sought to teach all subjects. Carla worked as a substitute teacher for a year while preparing her certification requirements. Once she obtained her bilingual certification, she was hired immediately as a bilingual teacher in Texas. After working for two years, her family moved to Florida, and Carla started looking for a teaching job as an ESOL instructor at the Elementary level. She left her resume in multiple schools hoping to hear a call back. At this point, Carla didn’t know there was a dual language program in the city. Then, she received a call back from Talentos inquiring if she would be interested in taking a Spanish teaching position in the dual language program; she accepted without hesitation. Carla taught 3rd grade core subject areas in Spanish for two years, then she was moved to 5th grade where she taught all subjects in both languages, “yeah, it is my own classroom I have more control of what I want to plan” (Interview 1, 35, initial interview). Despite the many challenges teaching 5th, Carla thoroughly enjoyed being a bilingual teacher, in the dual language program.

**Research Setting—Talentos Elementary School**

This study took place in a 5th grade classroom in a Dual Language program in North Central Florida. Talentos Elementary School (pseudonym) is a KG-5 elementary
school with 740 students schoolwide, and 70% of the student population receives free and/or reduced lunch. Talentos Elementary School not only houses a Dual Language Magnet Program, but it was also an ESOL (English for Students of Other Languages) center during the time the study took place. At Talentos, more than 50% of its student population has been identified as Limited English Proficient, levels 1-4 (LEP). Teachers and administration at Talentos serve the linguistic and academic needs of ELLs. The school welcomes guests with a sign proudly advertising the dual language program; however, the front office staff although welcoming, is not too familiar with the program (field observation notes 021015). As the researcher walks through the main hall, there is evidence of students' work in both languages. These bulletin boards are placed right next to each dual language classroom. The school houses two bilingual para-professionals (i.e. teacher assistant), and at the time of this study, none of the members in the administration were bilingual.

Talentos Elementary features a 50/50 program model using English and Spanish for academic purposes. Grades K-3 has two teachers teaching in English and Spanish across all core subject areas. Fourth and Fifth grade have one bilingual teacher in each classroom teaching all core subjects using both Spanish and English. These teachers teach math, science, reading, English language arts, and Spanish language arts. In addition, students also have a resource class and physical education. In Carla's classroom, the language of instruction for each subject changes every two weeks. As previously indicated all core subjects are taught in both languages, Spanish and English, the language of instruction for each subject changes every two weeks.
Carla’s 5th Grade Classroom

Carla’s classroom is located in a building adjacent to the parking lot. It was a small space which housed 18 students at the beginning of the study, and 22 students towards the end. Ten students were boys and twelve students were girls. Seventeen students spoke Spanish as their native language, and six students spoke English as their native language. Two of the students were African American. Due to students’ behavior and space issues, students’ assigned seats changed almost every other week. Carla made every efforts to place students so they can work in groups. She also had different learning stations where students work in centers. Centers were designed to meet students’ content needs, and to provide differentiated instruction. Centers were created after a close analysis to I-Ready™ (a computer program) and their end-of-quarter exams (CGAs). These centers were: Readers’ Response, Partner Reading, Meet with Teacher or Literature Circle, Computer (field notes 021314). Although, she did not have enough space on the wall, Carla displayed students’ work in both languages. Students used a language arts journal where they follow the lesson with the teacher in both languages. In terms of technology, Carla had 5 computers, and a smart-board.

Data Collection Methods

This study used different and diverse data sources. As far as primary data sources, this study used 10-teacher interviews. As far as secondary data sources this study used informal classroom observations; field notes, memos, video-taped formal classroom observations, and archival classroom artifacts. Informal observations allowed the researcher to develop criteria for selecting instructional instances where academic language was taught before conducting formal observations. They also provided further
insight into how Carla teaches academic language. Teacher’s interviews allowed the researcher to gain a better understanding of how Carla approached her planning sessions, and how she made sense of academic language while planning her lesson in language arts using English and Spanish. Videotaped classroom observations sessions were used as prompts for teacher interviews. In addition, while transcribing post-observation video elicited interviews, video-taped observations provided further clarification for the researcher. During the audio recordings of think-aloud planning sessions, the researcher was able to gain a better understanding of how Carla approached her instructional choices about academic language in the classroom before the lesson was implemented. Robust field notes allowed the researcher to take note of specific instances during classroom observations, teacher’s interviews, and discussion sessions where academic language was discussed and that may have been missed otherwise. Robust field notes facilitated not only the analysis, but the triangulation process. Each data source is linked to a research question (see table 3-2) for further information. Carla’s interviews yielded 187 pages of transcribed data. Secondary sources were used to facilitate the data analysis process.

**Informal Observations**

Four informal observations, two in each language, were conducted during the process of data collection. They took place a week prior each formal observation. The purpose of these informal observations was to gain insight into how the teacher approached language arts instruction and understand the role of academic language during language arts. Informal observations allowed the researcher to develop criteria for selecting instructional instances where academic language was taught. These observations were not videotaped; however, extensive and detailed field notes were
recorded. Informal observations provide insight look into the classroom context in order to address all four research questions.

**Intake Interview**

After IRBs from the University and the School District approved the research proposal, a pre-planning meeting, semi-structured teacher’ interview (Bernard, 1988) was conducted with Carla. The initial interview was conducted a week prior to the first video-taped classroom observation. The purpose of this interview was to gain as much background information about the teacher, including educational/ professional history and years of teaching experiences. I also sought to gain insight about Carla’s initial notion of academic language, for example, how does she understand academic language, and how does her understanding transfer to instructional practices?. The initial interview was transcribed immediately and a preliminary analysis was carried out in order to identify potential patterns (Wood & Kroger, 2000). See Appendix C for the initial interview protocol.

**Audio Recording of Think-Aloud Planning Session Interviews**

I, asked Carla for permission to sit in and record think-aloud planning-sessions. During these sessions, I was able to gain a better understanding of how Carla approached her instructional choices about academic language in the classroom. I was able to gain insight on how she approached her planning session and how she used the concept of academic language while planning the lesson in language arts. I conducted 4 audio-recorded think aloud lesson-planning sessions. These sessions were conducted when she planned for the weekly unit. They were conducted in English and Spanish and took place at Carla’s house at the beginning of each week.
**Video-taped Formal Observations**

I conducted videotaped classroom observations in four complete language arts units. Two of these units were taught in Spanish, and the other two units were taught in English. Carla used texts from the Houghton Mifflin 5th grade reading in English Language Arts text book to create language arts units based on specific standards. These units were taught throughout an entire week. Each unit had approximately four lesson plans. One lesson plan was implemented during each day of the week, and some lesson plans took two days to implement. I observed the implementation of these units four times: one in the month of February, one in the month of March (one in Spanish/one in English), one in the month of April, and one in the month of May (one in Spanish/one in English). Due to time constraints and a lengthy testing schedule, Carla herself identified the units to be observed for the purpose of this study.

Observations took place during Spanish language arts and English language arts. Each observation lasted a week from 12:30 noon until approximately 2:00 pm. After each observation was conducted, I transferred the digital video files from the camera to the computer and watched the videos trying to identify instances where Carla used and/or taught academic language. Carla focused on vocabulary instruction, instruction of the story read (e.g., story elements: plot, characters, details), language functions, and implementation of sentence frames. I also used field notes taken during the observation (Charmaz, 2006), the audio-recordings of the think-aloud planning sessions, and teacher’s interviews to assist me in identifying instances where Carla used and/or was teaching academic language in English and Spanish. Videotapes served as secondary data sources adding to the primary data source (i.e., teacher’s interviews). As secondary data sources, videotapes were not transcribed; however, they
were used as prompts for teacher interviews. In addition, while transcribing post-
observation video elicited interviews, videotapes provided me with further clarification.

**Video-Elicited Interviews**

These semi-structured teacher interviews based on the videotaped classroom
observations (Bernard, 1988) were conducted within 24 hours after a videotaped
classroom observation took place (see Yinger, 1986). I conducted 4 video-elicited
interviews. These video-elicited interviews were performed after the last class session
for the unit completed, and they lasted approximately 1 ½ hours. These interviews
allowed me to gain insight on how Carla associated her understandings of academic
language and her classroom practices, and how she identified differences (if there were
any) between the instruction of academic language in English language arts and
Spanish language arts. These interviews sessions were audiotaped and transcribed.

**Field Notes**

During each videotaped observation and informal observation, I took robust field
notes. I attempted to capture what was occurring in the classroom using vivid
descriptions of what I observed. These robust field notes provided “thick descriptions” of
what was occurring during the videotaped observations and provided additional
information to clarify my analysis process. Field notes were not coded. I used robust
field notes to confirm or debunk initial assumptions (Palmer, 2008; Avila-Rubinstein,
2003). They allowed me to note specific instances during classroom observations,
teacher interviews, and discussion sessions that may have otherwise have been
missed. Robust field notes facilitated and clarified the analysis process.
Archival Classroom Artifacts

I collected teaching materials and contextual data considered to be relevant during the research process. I collected all the lesson plans within the unit observed, and implemented during the videotaped formal observations. Eleven hand-outs were given to students during the data collection process.

Data Collection Timeline

Data collection for this study was conducted in a four-month period beginning in mid-February 2014 and ending in early June 2014. Collection occurred over four cycles. Figures 3-1, 3-2, 3-3, and 3-4 provide a summary glance of the data collection timeline, which will be described in detail below. Table 3-1 provides a summary glance of the language arts readings and content objectives planned for each of the four data collection cycles.

First cycle—February 10th to February 21st, 2014—English Language Arts

The first cycle of data collection began with the intake interview, which occurred on February 10th and lasted approximately one hour. I gathered as much information as possible on Carla’s personal and professional background, on her understanding of academic language and how she teaches it in her classroom.

Following the intake interview, I conducted three informal classroom observations over three days, which occurred between February 10th and February 14th. These informal observations provided insight on how Carla approached the instruction of academic language during English language arts instructional time. She frontloaded the academic vocabulary used in the reading and also highlighted content-specific vocabulary throughout.
I conducted audio recordings of think-aloud planning session interviews. On February 16th, the Sunday before implementing the upcoming week’s unit, Carla used the lesson plan template as a guide to develop a sequence of daily lesson plans to be implemented that week using stories from Houghton Mifflin’s 5th Grade English reader to create a thematic unit based on specific standards. Then she discussed with me how she was planning to implement her lesson plan for the upcoming week.

After the think-aloud planning session interview, I conducted videotaped formal classroom observations in Carla’s classroom between February 18th and February 21st. Field notes from the intake interview and informal classroom observations were used as background and context to observe Carla’s language arts lesson for that week. During the videotaped formal classroom observations, additional field notes were collected.

Closing out the first data collection cycle, I conducted a video elicited interview, which was conducted on February 21st, and lasted about ninety minutes. Two days prior to conducting this interview, I identified specific video clips in which the Carla used and/or taught academic language and academic vocabulary. These clips served as the basis for the video elicitation interview. Using field notes from the informal and formal interviews as well as the recorded think-aloud session, Carla and I discussed the video clips identified throughout the formal observation period.

**Second cycle—March 3rd to March 14th—Spanish Language Arts**

The second cycle of data collection began on March 3rd with another round of informal observations. From March 3rd to March 7th, I conducted two informal observations during a unit on Spanish language arts instruction. Carla’s weekly unit frontloaded academic language used in the reading and also highlighted content-specific vocabulary throughout.
Following these observations, I conducted an audio-recorded interview of Carla’s think-aloud planning session. On March 9\textsuperscript{th}, the Sunday before implementing the upcoming week’s unit, Carla used the unit template as a guide to develop a sequence of daily lesson plans to be implemented that week using stories from Houghton Mifflin’s 5\textsuperscript{th} Grade English reader to create a thematic unit based on specific standards. Then Carla again discussed with me how she was planning to implement her lesson plan for the upcoming week.

Following this think-aloud, I conducted four videotaped classroom formal observations in Carla’s classroom between March 10\textsuperscript{th} and March 14\textsuperscript{th}. Field notes from the intake interview and informal classroom observations were used as background and context to observe Carla’s language arts lesson for that week. During the videotaped formal classroom observations, additional field notes were collected.

Closing out the first data collection cycle, I conducted a video-elicited interview, which was conducted on March 14\textsuperscript{th}, and it lasted about ninety minutes. Two days prior to conducting this interview, I identified specific video clips in which the Carla used and/or taught academic language and academic vocabulary. These clips served as the basis for the video-elicited interview. Using field notes from the informal and formal interviews as well as the recorded think-aloud session, Carla and I discussed the video clips identified throughout the formal observation period.

**Third cycle—March 24\textsuperscript{th} to April 11\textsuperscript{th}—English Language Arts**

The third cycle of data collection began on March 24\textsuperscript{th} with another round of informal observations. From March 24\textsuperscript{th} to March 28\textsuperscript{th}, I conducted three informal observations during a unit on English Language Arts instruction. Carla’s weekly unit
frontloaded academic language used in the reading and also highlighted content-specific vocabulary throughout.

Following these observations, I conducted another audio recording of Carla’s think-aloud planning sessions. Due to time constraints and traveling conflicts, the think-aloud planning session interview took place on Monday, April 7th after the school day was finished. Here, Carla used the unit template as a guide in completing a sequence of instructional activities—building on the day’s classroom exercises—using stories from Houghton Mifflin’s 5th Grade English reader to create a thematic unit based on specific standards. Carla discussed with me how she was planning to implement her lesson plan for the upcoming week.

Concurrent to and following this think-aloud planning session interview, I conducted five videotaped classroom formal observations in Carla’s classroom between April 7th and April 11th. Robust field notes from the informal classroom observations were used as background and context background and context to observe Carla’s language arts lesson for that week. During the videotaped formal classroom observations, additional field notes were collected.

Closing out the first data collection cycle, I conducted a video-elicited interview, on April 11th, which lasted about ninety minutes. Two days prior to conducting this interview, I identified specific video clips in which Carla used and/or taught academic language and academic vocabulary. These clips served as the basis for the video elicited-interview. Using field notes from the informal and formal interviews as well as the recorded think-aloud session, Carla and I discussed the video clips identified throughout the formal observation period.
Fourth cycle—April 28th to May 8th—Spanish Language Arts

The fourth and final cycle of data collection began on April 28th with another round of informal observations. From April 28th to May 2nd, I conducted informal observations during a unit on Spanish Language Arts instruction. Carla’s daily lesson plans within the unit frontloaded academic language used in the reading and also highlighted content-specific vocabulary throughout.

Following these observations, I conducted another audio-recording interview of Carla’s think-aloud planning sessions. On May 4th, the Sunday before implementing the upcoming week’s unit, Carla used the unit template as a guide to develop a sequence of instructional activities using stories from Houghton Mifflin’s 5th Grade Spanish reader to create a thematic unit based on specific standards. Carla discussed with me how she was planning to implement her lesson plan for the upcoming week.

Following this think-aloud session planning interview, I conducted two videotaped formal classroom observations between May 5th and May 8th. Robust field notes from the informal classroom observations were used as background and context to observe Carla’s language arts lesson for that week. During the videotaped formal classroom observations, additional field notes were collected.

Closing out the fourth and final data collection cycle was the video elicited-interview, which was conducted on May 8th. Two days prior to conducting this interview, I identified specific video clips in which Carla used and/or taught academic language and academic vocabulary. Using field notes from the informal and formal observations as well as the recorded think-aloud session planning interviews, Carla and I discussed the video clips identified throughout the formal observation period.
Participant exit interview

Carla and I met again to conduct one last interview—the exit interview. This exit interview lasted approximately two hours and allowed me to gain insight into Carla’s understandings of academic language, and how she connected her understanding to her classroom practices in language arts. It also allowed us both to reflect on the lengthy process of the study.

Data Analysis Methods

Table 3-2 provides a summary glance of the data used as primary and secondary sources. All of Carla’s interviews were transcribed and read carefully multiple times (i.e., three times) to gain a deep insight of the data. This case study is guided by Charmaz (2006) constructivist grounded theory and Glaser and Strauss (1967) grounded theory methods of analysis. Words and phrases that resonated with me while reading the data were identified. As I read each source of data, I engaged in memo writing. According to Charmaz (2006), memo writing allowed me to analyze the data and the codes early in the research endeavor. While writing memos, I carefully stopped and examined my thoughts about my codes as they are occurring (p. 73). Memo writing was an extensive process. The first time I read the data, I started by highlighting words and or phrases that resonated with me. The second time, I read the data; I made annotations on the sides on all 10 interviews. The third time, I wrote down my memos. I clustered interviews 2 through 9, and 1 and 10 together. After having clustered the interviews, I started reading my memos one more time, and patterns on how Carla understands academic language started to emerge.

In order to accomplish the initial coding phase, I engaged in line-by-line coding, that is, coding each line in the paragraph (i.e. naming mainly each line of the written
data) (Glaser, 1978) Then, data went through a focused, selective phase coding in order to separate, sort, and synthesize large amounts of data. During focus coding, I used the most frequent and significant codes to identify large amounts of data (p. 57).

Using axial coding (Strauss & Corbin, 1998), I started identifying categories and subcategories. Each subcategory was defined to facilitate the coding process. Axial coding helped me understand how the relationships between categories occur on a conceptual level. For example, codes like, teacher defines academic language as formal language versus informal language; teacher defines academic language as words which are subject specific (words that go with the subject); and teacher defines academic language as words linked to a specific language function, fall under the category, teacher defines academic language (see the coding sample below for further information). Connections were drawn between initial codes among the data seeking to establish core categories and common themes in efforts to construct a theory (i.e., theoretical coding) that would provide insight on the research questions. The process of triangulation took place across all 10 interviews.

**Code Samples**

See Appendix D for a full list of codes.

A. Teacher defines academic language

A.1. Teacher's definition of academic language

A.1.1 Teacher defines academic language as formal language versus informal language: Teacher makes a distinction between the use of formal language versus informal language when she defines academic language.
A.1.2 Teacher defines academic language as words that are subject specific (words that go with the subject). Teacher suggests that academic language is speaking within a specific context.

A.1.3 Teacher defines academic language as words linked to a specific language function: For example, according to the teacher, cause and effect inferences have a very specific language. In language arts: *what kind of language you would have to use in order to embody that of an inference in you know in any other skill or strategy*

B. Teacher identifies the language-focus of her instruction

B.1. Teacher identifies the language function taught in the lesson.

Language function, that is, what students are “expected to do with language” and the purposes for which language is used to communicate (Gottlieb & Ernest-Slavit, 2014, p.192). Teacher concentrates on teaching the language function taught in her lesson.

B.1.1. Teacher identifies the language function taught in the lesson: Teacher provides her definition of the language function to be taught.

B.1.2. Teacher explicitly teaches the language function taught in the lesson: Teacher teaches the concept of specific language functions taught in her lesson (i.e. teacher teaches students how to describe, how to make an inference, how to identify cause and effect). Teacher addresses specific language functions taught in the lesson.
B.1.3. Teacher makes connections between language functions; certain linguistic functions are taught in clusters.

B.1.4. Teacher identifies the language demands students should be able to master based on the unit: As far as language goes, what is the teacher asking students to know and to be able to show given the content taught. The language students need to be able to do the work the teacher is asking them to do.

**Trustworthiness**

Guba (1981) offers four criteria for trustworthiness: 1) credibility 2) transferability 3) dependability and 4) confirmability. I made efforts to reach credibility by adopting an appropriate research method as well as familiarizing myself with the Carla's culture and context. Before the conducting data collection, I performed an additional observation in December of 2013. The purpose of this observation was to understand the classroom’s routine and instructional practices. In addition, although my observations were only intended to be conducted during language arts; most days, I would spend the entire day in her classroom observing the instruction of other subjects (i.e. math and science), as well as working with students who needed support. Further, I provided thick descriptions of her case study. During informal observations, I wrote detailed field notes attempting to capture what was happening in the classroom. During videotaped formal classroom observations, I wrote detailed field notes adding background support to what was captured in the video. Throughout the process of data collection, I orally consulted with Carla when clarification was needed about the data to ensure that I was reflecting her intent accurately (Shenton, 2004). Transferability was established by providing a full
description of the phenomenon and use of background information to establish the context of the study.

This chapter describes in detail the process of data collection. Dependability was reached by providing an in-depth methodological description to facilitate reproduction of the study. Confirmability was established by using triangulation to reduce researcher bias (Shenton, 2004). For example, all 10 interviews were carefully analyzed and my on-going memos were used to triangulate the data. As the data were being transcribed, I started reading the data to familiarize myself with the case study. Along with the interview data, I used my memos. Secondary data sources were used to add context and background to the data analysis process. Finally, as previously mentioned, the researcher conducted on-going conversations with Carla to ensure her intent was being reflected accurately. Primary data sources added to the study’s process of validation (Wood & Kroger, 2000).

**Researcher Position Statement**

I position myself within realm of this study as a former ELL high school student, ESOL high school instructor, and current ESOL teacher educator. My experience working with elementary school is limited to the research realm. My work in the field of ESL/ Bilingual Education been at the secondary and college level. I have been conducting observations in an elementary dual language classroom for the past four years as a research assistant. During this time, I was able to develop a good rapport with teachers in the dual language program. I have grown attached to their professional and professional academic progress as well as their emotional well-being. I did my best to control for any emotional connection as well as professional responsibilities toward the teachers. Furthermore, throughout the process of this study, I did my best to protect
the accuracy of Carla’s intent so that my own perceptions and beliefs about language, academic language register, and classroom instruction did not skew the data. My study’s findings are grounded in the data.

Throughout the professional development sessions implemented, I was able to develop a relationship with Carla, and I was able to observe how she reflected upon her practices, and how she would applied what she had learned during our professional development sessions. I interrupted my support in the professional development sessions during the data collection process. I admired her devotion to the program and the academic development of all her students. As for academic language, as a second language learner myself, and being in a position where I had to learn the “academic language” expected in the research community, I found this topic both fascinating and intimidating at the same time. I knew, I needed to understand how it worked and how I could apply it for my own professional and academic growth.

Once I was in the classroom conducting data collection, it was difficult to limit myself to the role of a non-participant observer. Instead, I became a participant-observer. DeWalt and DeWalt (2002) describe participant observation as the process by which a researcher acquires an understanding of the participants’ activities within an organic setting. I not only observed the activities; I also engaged and actively participated in those activities. I stayed in the classroom during the entire day. I helped students with their work. I listened to Carla and helped her clarify any doubts during science or math instruction. Her doubts mainly consisted of concern about using the accurate Spanish term during the daily lesson. However, during language arts (i.e., Spanish and English), I tried to the best of my abilities to simply conduct observations.
without participating in the instruction. On-going reflection on my experience, as I engaged in the research process, allowed me to gain insight on my own bias. When watching formal observation videos and transcribing the interviews, I would keep my field note notebook by my side to ensure that I understood what was actually happening in the classroom from Carla’s point of view. I conducted informal debriefing sessions with Carla as the data were transcribed and the videos were analyzed, to ensure that her intent was portrayed accurately.
Table 3-1. Language, readings, and learning objectives by data collection cycle.

<table>
<thead>
<tr>
<th>Collection cycle</th>
<th>Language</th>
<th>Readings</th>
<th>Learning objectives</th>
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<tbody>
<tr>
<td>First cycle, February</td>
<td>English</td>
<td>Houghton Mifflin, Black Cowboy</td>
<td>Author’s perspective</td>
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<td>10th to 21st</td>
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<td>and Wild Horses</td>
<td>Language functions—</td>
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<td>inference and description</td>
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<td>Second cycle, March</td>
<td>Spanish</td>
<td>Houghton Mifflin, Elena</td>
<td>Theme: tone and mood, summary</td>
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<td>3rd to 14th</td>
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<td>Academic vocabulary: using cognates, Latin and Greek roots and affixes</td>
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<tr>
<td>Third cycle, March</td>
<td>English</td>
<td>Houghton Mifflin, My Side of the</td>
<td>Sequencing of events, cause and effect, drawing conclusions</td>
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<td>24th to April 11th</td>
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<td>Mountain</td>
<td>Multiple meaning words</td>
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<td>Fourth cycle, April</td>
<td>Spanish</td>
<td>Houghton Mifflin, Béisbol en</td>
<td>Character traits</td>
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<td>28th to May 8th</td>
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<td>Research question</td>
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<td>How does a dual language teacher define and understand academic language?</td>
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<td>How does a dual language teacher connect her understandings of academic language</td>
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<td>to her classroom practices?</td>
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<td>What are the facilitators and constraints the teacher identifies as influences</td>
<td>Primary (analyzed) Participant interviews</td>
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### Figure 3-1. Collection events, February 2014.

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<td>3rd Video-elected interview</td>
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<td>5th Video-elected interview</td>
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**Informal observations**—Conducted in the dual language classroom; 2 hours each informal observation.

**Think-aloud planning session**—Audio-recorded session conducted at the participant’s home; 1 1/2 hours long.

**Formal observations**—Videotaping conducted in the dual language classroom; 1 1/2 hours each formal observation.

**Video-elected interview**—Audio-recorded session conducted in the dual language classroom; 1 1/2 hours long.

### Figure 3-2. Collection events, March 2014.

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**Informal observations**—Conducted in the dual language classroom; 2 hours each informal observation.

**Think-aloud planning session**—Audio-recorded session conducted at the participant’s home; 1 1/2 hours long.

**Formal observations**—Videotaping conducted in the dual language classroom; 1 1/2 hours each formal observation.

**Video-elected interview**—Audio-recorded session conducted in the dual language classroom; 1 1/2 hours long.
### April 2014

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*Informal observation*—Conducted in the dual language classroom; 2 hours each informal observation.

*Think-aloud planning session*—Audio-recorded session conducted at the participant’s home; 1 ½ hours long.

*Formal observations*—Videotaping conducted in the dual language classroom; 1 ½ hours each formal observation.

*Video-ejected interview*—Audio-recorded session conducted in the dual language classroom; 1 ½ hours long.

### May 2014

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*Informal observation*—Conducted in the dual language classroom; 2 hours each informal observation.

*Think-aloud planning session*—Audio-recorded session conducted at the participant’s home; 1 ½ hours long.

*Formal observations*—Videotaping conducted in the dual language classroom; 1 ½ hours each formal observation.

*Video-ejected interview*—Audio-recorded session conducted in the dual language classroom; 1 ½ hours long.

*Exit interview*—Project completion interview conducted in the participant’s home; 1 ½ hours long.

Figure 3-3. Collection events, April 2014.

Figure 3-4. Collection events, May 2014
CHAPTER 4
RESULTS

This chapter discusses the themes that emerged from the data analysis related to the four research questions: a) defining academic language; b) connecting understanding of academic language to classroom practice; c) identifying similarities and differences while teaching academic language in English and Spanish; and d) identifying facilitators and constraints in terms of how Carla understood academic language. The previous chapter, Table 3-1 provides a summary at glance of the language arts readings and content objectives planned for each of the four data collection cycles.

Defining Academic Language

The following section will discuss Carla’s multiple definitions of academic language as it is grounded in the interview data. As Carla described her definition of academic language within the context of a dual language-language arts classroom taught in both English and Spanish, three aspects emerged: 1) Academic language as formal, proper, and complete language use; 2) academic language as a discipline-based language; and 3) academic language as language functions. According to Carla, a teacher’s academic language, viewed as formal, proper, and complete language use in the classroom, looks different from social language use in every day classroom interactions. Academic language as discipline-based language highlights subject specific words (i.e., vocabulary and content specific words), and academic language as language functions refers to the language associated with specific academic tasks and used for academic purposes (e.g., to describe, to explain, to compare and contrast, and to show sequence). Furthermore, Carla described academic language in terms of how
language is used for different communicative purposes. Each of these themes will be explored on the following sections.

**Academic Language as Formal, Proper, and Complete Language Use**

Carla’s definition of academic language is multidimensional and multifaceted which mirrors the current literature exploring academic language. Carla views academic language broadly as formal, proper, and complete language used in the classroom. When she is asked to describe her understanding of academic language in the classroom, she describes it as speaking properly or using a formal way of speaking, “it’s just a formal way of speaking I guess [laughs] and just really using the words that go with that subject” (Interview 10, exit interview). In her first interview, she said:

> Speaking properly. Yes! I mean speaking with the correct I guess speaking in a term. I don’t know how to say it. Speaking in a way where everyone can understand you but it is also complete you know. (Interview 1, intake interview)

Carla described academic language as formal language and language spoken properly; she also defined academic language as language that is complete. When she used the term complete, she referred to students using words she would like them to learn and understand. As Carla attempted to define academic language, it seemed that participation, featuring the use of formal, proper, and complete language (i.e., conveying the message clearly) lies at the center of her understanding.

**Academic Language as Discipline-Based Language**

Carla also discussed academic language as a discipline-based language. Her definition not only featured subject-specific words, but it also pointed to scaffolding cognitive skills necessary to master the content material. The language arts standards addressed in the district’s curriculum guides dictate Carla’s understanding of academic
language. For example, academic vocabulary instruction is addressed in her lesson plan because the standards ask students to understand Latin and Greek roots and affixes (Observation Second Cycle March 3\textsuperscript{rd}-14\textsuperscript{th}).

Carla described academic language as words used within a particular subject, “I mean you know if it is language arts you want them to use the skills, you want to use umm strategically words to make sure they would understand it” (Interview 1, intake interview). She highlighted the importance of teaching students words taught in the content in order to facilitate understanding. In addition, Carla linked her understanding of academic language to the cognitive skills (i.e., making inferences) required to master a particular set of abilities. She mentioned “so I guess in academic language and language arts it’s, if I’m going to say something you have to understand the meaning of what an inference would be in language arts, what kind of thinking you would have to use” (Interview 10, final interview). Carla discussed making an inference in language arts is related to a specific set of cognitive processes. These skills should be scaffolded during language arts instruction.

**Academic Language as Language Functions**

Carla discusses academic language as words linked to specific language functions (i.e., the purpose of language use) (Gottlieb & Ernst-Slavit, 2014). For example, “to describe” is a language function which appears ubiquitously in the curriculum guides. When Carla thought of words used to describe within the context of language arts; she linked description to providing an opinion. In this particular example, Carla’s need for further clarification among both concepts (i.e., to describe versus providing an opinion) is evident. She seemed to be confused in terms of what describing and providing an opinion meant as far as her instruction. However, she believed that to
perform either function (e.g., to describe or to provide an opinion), students needed to use words they already knew. She decided to teach description. She pointed out her focus was more on adjectives than describing words. It seemed as though she was drawing a difference between teaching describing words and adjectives words. Her choice depended on the task students were required to perform. For example, when describing character traits, teaching how to use adjectives is an important skills students should acquire.

To think of describing words like when you describe something you are going to describe with like an opinion kind of word you know. I guess I was really focused more on adjectives than describing words that you would use to describe something. (Interview 3, video-elicitation)

In this particular unit, students were reading the text selection, *Black Cowboys and Wild Horses*, and were working on identifying author’s perspective. Carla identified making inferences and describing as the academic language functions needed to teach the author’s perspectives. Although not explicitly stated, Carla decided to teach her students how to use adjectives so that they are able to describe. Implicitly, in order to identify the author’s perspective, Carla connected both concepts: teaching adjectives and teaching description as a language function.

Later on in the semester, the topic of adjectives appeared again while teaching character traits, she mentioned, “in order to describe you have to use adjectives and that’s where they are. Because I knew they were going to give me adjectives but then I wanted them at the end to be able to distinguish too” (i.e., identifying the difference between physical and moral character traits). During this Spanish lesson, she teaches the grammatical structures associated with the use of adjectives (i.e., gender and number agreement), “*(video) un adjetivo siempre debe concordar en género y en* *
número con el sustantivo al que se refiere” [an adjective should always show agreement with the noun’s gender and number] (interview 9, video elicitation interview). Carla made this explanation concrete while teaching both gender and number within the context of character traits.

Sequencing was another language function Carla scaffolds throughout her lesson plans. For example, when working with the text selection *My Side of the Mountain*, Carla’s content objective was to identify the sequencing of events. Carla described sequencing as “a little more like a retelling but not every detail. So retelling of main events. Chronological order because it was a diary and it has to fall like that” (interview 6, think aloud lesson planning interview). Carla pointed out that sequencing should be scaffolded as the chronological order of the story.

Carla: So I wanted everyone to get everybody to realize the sequence in this story particularly had a chronological order.

Researcher: And what were they supposed to do?

Carla: And so it was really hard for them to figure out: “OK what events do I start writing?” and I had to really push for them to figure out the dates and then they were able to see OK it does go in order. (Interview 7, video elicitation interview)

The fact that the story was written in a diary format facilitated students’ understandings as far as seeing the link between sequencing and the chronological order of the events in the story. In terms of academic language, Carla scaffolded transitional words that would signal sequencing (e.g., first, then, last, finally).

**Connecting Understanding of Academic Language to Classroom Practices**

This section will describe how Carla connects her understanding of academic language to how she teaches academic language in language arts, so that students are able to take part in the learning process. In terms of practice, Carla’s understanding of
academic language is linked to her instruction in language arts through the implementation of: 1) vocabulary instruction and 2) language objectives illustrated by writing sentence frames as a crucial feature of language objectives. Sentence frames are used to scaffold for specific linguistic patterns. In this study, the teacher writes the sentence frames, models them for students, and creates opportunities to practice these sentence frames in the classroom. Carla seems to understand academic language from a participatory perspective. Thus, in language arts taught in both English and Spanish, Carla scaffolds the academic language that would allow students to communicate their ideas about what they have learned or what they already know about the content taught in language arts.

Vocabulary Instruction

This section describes how Carla approached vocabulary instruction. Within this section two subsections will be further explored: 1) teaching vocabulary strategies (e.g., Greek and Latin roots and affixes are used, identifying multiple meaning words, and teaching synonyms and antonyms) guided by the curriculum guides, and 2) teaching vocabulary scaffolding strategies to facilitate comprehension. Vocabulary instruction refers to content-specific words students must acquire for the purpose of a lesson plan. In order to plan for vocabulary instruction, Carla uses a combination of words pre-selected in the text, words she feels students need to know, and she asks students to identify unknown words in the text.

In English I mean I always look at their suggested list but I mean to me it just makes more sense to read the story and kind of okay what words do I know that kids won’t understand or what words do I want the kids to learn you know so that was always my mindset in English in Spanish it was like “okay, what words do I not even know what they are”. (interview 10, final interview)
Teaching Vocabulary Strategies Guided by the Curriculum Guides

The curriculum influenced Carla’s decisions about how to teach vocabulary, helping students understand how Greek and Latin roots and affixes are used, identifying multiple meaning words, and teaching synonyms and antonyms. While teaching vocabulary, Carla also included teaching cognates—teaching cognates allowed students to identify words that are similar in both languages. The following sections will discuss each vocabulary strategy in detail.

Greek and Latin Roots and Affixes

Carla taught Greek and Latin roots and affixes in both English and Spanish as part of her language arts curriculum. In Spanish, she used the term *palabras derivadas* [derivative words]. She felt as though it was easier to identify these words in Spanish due to their Latin and/or Greek origins (observational field notes 032414).

And so I figured we can so teach a lot of Latin roots with the Spanish because a lot of the Latin roots are the word in Spanish so that was very easy. I think for me that just went hand in hand and I think the kids too. They were like “that’s it? That’s the root? That’s what I read?” and I’m like that’s it, that’s how easy it is in Spanish and I don’t think some realize it was going to be that easy. (Interview 5, video elicitation interview)

During the second cycle of formal observations, and while working on the text selection *Elena*, Carla’s content objectives were to scaffold students’ understandings of theme, mood and tone. In addition to, scaffolding vocabulary using Latin and Greek roots and affixes. Carla concentrated on the latter to increase students’ vocabulary development. Carla began by identifying *palabras bases* [base words] and asking students to write these base words (see below) in their journal:

*Matrimonio* [marriage]

*Matri significa madre* [matri means mother]
Morir [to die]

Mor significa morir [mor means to die]

Años [years]

Añ significa años [an means years]. (Formal Observation 031014)

Carla then discussed the concept of base words in class. She provided a list of different words for students to classify them as base words. In addition, she introduced the term palabra raíz [root word] and models the use of the terms by providing examples. The examples seemed to lack consistency. Below is a list of examples Carla provides:

Amigo la palabra raíz es ami [Friend, the root word is]

Dormir la palabra raíz es dorm [To sleep, the root word is]

Paciencia, la palabra raíz es pac, significa paz. [Patience, the root word is ___; it means peace.]

Desprotegida, palabra base es proteg [Unprotected, the base word is_______.]

The examples above showed explicit teaching of root words. They also showed inconsistencies namely that in Spanish, the term palabra base [base word] does not exist. On the contrary, Spanish uses palabra raíz [root words]. As seen in the previous section, Carla used root words and palabra base interchangeably. She added a sentence frame in order to scaffold language participation for students.

La raíz de la palabra____________ significa____________ [The root of the word_______ means _________.] La palabra significa__________ porque la raíz significa___________. [The word means_______ because the root means_______.] (Formal Observations 031114)

Carla asked students to create a tree map to classify Latin roots and base words. Then, she asked students to underline the root and the base word and classify words according to their “word family.” A base word stands alone. It can have a prefix or a
A suffix added to it which can change the meaning of the word (Center for Reading Research). A root word, on the other hand is described as “the basis of a new word, but it does not typically form a stand-alone word on its own” (Reading Rockets). Carla asked students to choose three words with different roots to fill out the following sentence frame:

La palabra _________ se deriva de la palabra _________ porque_________. [The word_____ derives from the word______because_______.] (Formal Observation/Worksheet 031314)

**Synonyms and Antonyms and Multiple Meaning Words**

Carla discussed using synonyms and antonyms as part of her vocabulary instruction (Observational Field Notes 021214). However, students found it difficult to understand the difference between being able to describe the definition of a word and identify the synonym and/or antonym of the word. Carla mentioned, “kind of like today with that activity just that one synonym that matches a word. They kept giving me another definition. I am OK but what is one word you can say to describe what you are telling me” (Interview 6, think aloud lesson planning interview). Carla focused on identifying multiple meaning words students may encounter while reading the text. She added sentence frames to help students participate as they talk about multiple meaning words with their peers.

__________means_______ because in the sentence it states _________.
I think__________ means__________ because it is similar to _____________.
_______is the opposite of____________.

**Cognates**

Carla also taught vocabulary using cognates and/or false friends as an instructional practice. Carla felt that teaching cognates and/or false friends as a
vocabulary strategy would provide students with a certain level of autonomy as they engaged in the learning process. According to Carla, “they are seeing those connections between English and Spanish for the words they are pretty similar. They can learn many new words. Because that way they can learn many new words on their own” (Interview 5, video elicitation interview). She also mentions that studying cognates allows students to identify subtle differences between both languages helping them increase their metalinguistic awareness:

The spelling is a little bit different but you know they were able to recognize those subtle differences too and they saw the patterns with the –ción and –ción words and then they were able to see the exact words that they were exactly the same. So I wanted to take that barrier away from them through the cognates and once we got through that and they were just went crazy. (Interview 5, video elicitation interview)

Carla started by helping students identify cognates. Carla defined cognates as, “palabras que se parecen y significan lo mismo en dos o más idiomas” [words which look alike and have the same meaning in one or more languages]. Carla asked students to be careful with amigos falsos [false friends]. Carla illustrated this concept by using the following example: pie [food] and pie [foot]. She asked students to add an illustration in their journal depicting the previous example. She built background knowledge by pointing out to students the story they were about to read is a ficción histórica [historical fiction]. She explained to students there is a real story behind this narrative. The story of Pancho Villa. Then, she proceeded to provide a summary of the story. Students come up with the following cognates: dictador, notorio, transformo, desaparecidos, and líder [dictator, notorious, transform, disappear ones, leader]. Carla asked students to work with partners identifying the cognates in the story, and after a brief discussion with the researcher, she adds to the board:
Carla asked students to use the sentence frame above to describe how cognates relate. Throughout the week, Carla provides students other sentence frames so that they can talk about why two words may be considered cognates.

La palabra__________ parece a la palabra___________ y por eso yo creo que son cognados. [The word____ looks like the word_____ and that is why I think they are cognates.]

Yo aprendí que la palabra___________ es parecida en inglés a la palabra_____________y por eso yo creo que son cognados [I learned the word____ in English looks like the word________ and that is why I think they are cognates.]

Teaching Vocabulary Scaffolding Strategies—Context Clues and Graphic Organizers

Carla used two strategies to increase students’ academic vocabulary: 1) how to use context clues to increase vocabulary development; and 2) how to use graphic organizers. The first strategy is teaching students how to use context clues in the text to understand the meaning of specific words (observational field notes 021214). Carla states:

I guess I need to present it in a way that it is going to be real to them so I need to teach them how to umm understand an unfamiliar word basically and that’s the direction where I really want to take or I need to take with them you know all those context clues and figuring out what those words mean and making sure you use them. (Interview 1, intake interview)

The second strategy is the use of graphic organizers in the form of foldables and the Frayer model to teach academic vocabulary (Observational Field Notes 040714). Using the Frayer model, Carla asked students to define one word by finding four different categories: definition, grammatical category, synonym/antonym, and using the word in a sentence. The Frayer model is a four square chart. It contains the definition of
the word, part of speech, synonym/antonym, and the use of the word in a meaningful sentence. In terms of foldables, she mostly used them to mediate content, “you have the detail plus detail equal inference.” In this instance her content was associated with the language function of inference. However, she also points out that these foldables or manipulatives are used to increase vocabulary development, “we have done so many foldables for vocabulary and so many other things.” Carla has used the foldables to fulfil different instructional purposes most importantly, “it is just a way to keep their thoughts organized” (Interview 3, video elicitation interview) (See Figure 4-3).

**Language Objectives Illustrated by Writing Sentence Frames**

This section will discuss how Carla teaches academic language in language arts by writing language objectives and embedding sentence frames throughout her instruction. The integration of language objectives in her lesson plans is illustrated when she embeds sentence frames in her instruction. This section will discuss both topics in detail.

**Language objectives**

This section will discuss how planning for language instruction and thinking about language instruction has influenced how Carla writes her lesson plans. At the beginning, planning for language was not part of her lesson plan; however, Carla’s approach changed when she saw her students’ need for specific language instruction. The following data excerpt was taken from Carla’s exit interview as she reflected upon when to plan for the language skills students need to perform the activity requested (i.e. filling out the Frayer model). Carla realizes that she now needs to plan to scaffold for the language students are going to need to participate in the activity.
It is, and it originally it was not, and it usually isn’t but I think when we did was it the four words with the Frayer model thing, that’s where it came like they had to switch information there but I didn’t plan for that because the goal of the objective was something completely different so it’s like “okay, so I need to plan for you to ask a question and how do you respond to a question”. (interview 10, lines 152-154, exit interview)

Carla seemed to identify the reason why she needed to plan for scaffolding language while writing her lesson plans in language arts, “I think that’s probably the biggest thing I think I’ve taken. But I’ve also, on the other side, I’ve also realized how valuable some of the things that I do, like the language structures, umm, the vocabulary reinforcement, how valuable that is to language arts (Interview 10, final interview).

Carla’s language objectives are linked to her content objectives. Moreover, her understanding of writing language objectives has increased. She realized that specific language functions should actually match her content objectives.

I am adding the language, yeah! That’s what I decided to do. To add myself now that I finally I understand it better but it is funny because the function I do realize that it really matches my objectives and so I just need to add like how I want them to be responding [laughs]. It finally made sense to me. (Interview 2, think aloud lesson-planning interview)

While working with the text Elena, and during one of the think aloud lesson planning interview sessions, Carla wanted students to summarize the story. She thought teaching them the language of sequencing would be appropriate, “I guess I want them to say that in like a sequential kind of format [I don’t know] and don’t be so long it’s just short to the point” (Interview 4, think aloud lesson planning interview). Further, she singled out the language function to be taught and placing said language function at the center of her instruction, “That was the idea, so cause and effect will be Wednesday” (Interview 6, line 65, think aloud lesson planning interview).
Sentence frames

This section discusses Carla’s use of sentence frames (i.e., teacher-fabricated sentence frames) as grounded in the data. Sentence frames are used to scaffold for specific linguistic patterns. In this study, Carla wrote sentence frames, modeled them for students, and created opportunities to practice these sentence frames in the classroom. In Carla’s instruction, sentence frames were a key feature of language objectives. Carla implemented sentence frames in order to scaffold the written and/or oral language students need to participate in the lesson. Two subsections will be discussed below in further detail: 1) Sentence frames grounded in the standards in the curriculum guides; and 2) Sentence frames to facilitate text comprehension and student participation.

Sentence frames grounded in the standards in the curriculum guides

Carla’s implementation of sentence frames in her lesson plans responded to the content demands of the objectives identified in the standards of the curriculum guides. For example, while working on the text My Side of the Mountain she attempted to address the following standard LA.5.1.7.7: Compare and contrast elements, setting, characters, and problems in a text. Carla gave each student two index cards and asked them to write character and setting on each card. She implemented this strategy to scaffold student participation as well. On the back of the character card, students wrote:

The main character is Sam. He is the only main character because_________. In the setting card, on the back, students have to write: The story takes place in_______ during_______.

(Formal Observation 040814)

While addressing a different standard (i.e. LA.5.1.7.3: Determining explicit ideas and information in a text including but not limited to the main idea, relevant supporting details, implied messages, inferences, chronological order, and summarizing), Carla
used *My side of the mountain* to scaffold the chronological order of the story for students. The story is written in a diary format where each entry has a date, thus, Carla scaffolds the notion of sequencing for students. She does so by providing her students with a visual representation of a story’s sequence of events (Figure 4-1).

Carla scaffolded the language students should use when writing in class, as well as, the language needed to use to participate in class. Carla asked students, “When you are talking about things that happen in order, what words do we use?” Carla continued, “I am going to tell you the sequence of events. The order things take place.” So students yelled out: “first.” Then, Carla asks, “another way to say first?” Students replied, “Beginning.” Carla continued to engage students in conversation. She asks, “to explain the things that happen after the first thing: what can I say?” Students came up with: After that, later on, next, afterwards, second, then, meanwhile.” And finally, she asks, “what can we do at the end?” Students replied, “finally, at last, lastly, and in the end” (Formal Observation 040814). By careful attention to the language of sequencing, Carla scaffolded student participation. After having scaffolded sequencing, character, and setting, Carla continued to teach students to identify the cause and effect relationship in the story in order to increase comprehension. She writes the following language structure: “____ happened because of ___. ____ happened so ______” (Formal Observation 040814).

**Sentence frames to facilitate text comprehension**

Carla used sentence frames to increase students’ text comprehension and participation. While working with the text *Elena*, in Spanish, and seeking to scaffold the skills of summarizing, Carla asked students to use their story map (i.e. foldables) to add their prediction about Elena, “La historia de Elena se va a tratar de______________.”
The story is about __________. Carla added language so that students can perform the activity requested. The next day, Carla scaffolded for reading comprehension, she asked students to use their story map to describe the characters and the events of the story. As students engaged with the story, they added information to their story maps. Carla also added sentence frames to scaffold students’ use of language in Spanish.

La historia se trata de __________. Ella tiene cuatro hijos: Rosa _____, ________, ________, y ________. Pablo era el esposo de Elena. [The story is about __________. She has four children: Rosa, ________, ________, and ________. Pablo was Elena’s husband].

Carla planned on teaching the mood and tone of the story. She introduced el tono [the tone] and la voz [the mood] by using concepts she encountered while researching online. She defined the tone as “la perspectiva o actitud que el autor adopta acerca del personaje o lugar: solemne, grave, irónico, y cómico” [the author’s attitude or perspective in reference to a character or place: solemn, grave, ironic, and comic]. Carla described the tone as, “las emociones que nacen de la voz del autor. El autor revela el tono a través de la selección de palabras” [Emotions conveyed in the author’s voice. The author conveys the tone through his/her choice of words.] (Formal Observation 031314). Then, she reviewed the plot of the story and implemented reading comprehension questions throughout the class discussion. Carla used the following sentence frame to describe the tone of the story:

Yo pienso que la historia de Elena tiene un tono __________ porque __________ [I think Elena has __________ tone because __________].

Carla did not discuss the mood of the story; even though, she wrote in her lesson plan the following sentence frame addressing both: mood and tone:

Yo creo que este ejemplo __________ demuestra el tono y la voz del autor porque __________. [I think this example __________ conveys the
author’s mood and tone because__________]. (Formal Observation/ Lesson Plan Template 031314)

During the last day of the lesson, Carla asked students to write the word el tema [theme] in their story maps (i.e., foldables). In her lesson plans she provided students with the following sentence frames so that they can write about the theme of the story in their foldable.

*Yo creo que el tema de la historia es________ porque_____________.*  
*Elena era una persona ______ porque__________.* [I think the theme of the story is ____ because______]. Elena is a ________ person because_______. (Formal Observation 031414)

The themes identified in Elena were: bravery, courage and determination; therefore, Carla went through the story helping students find examples in the text where Elena showed courage, bravery, and determination. Despite the multiple examples, it is not clear if Carla was able to effectively teach the concept of theme to her students and/or if her students were able to fully understand the concept. During the rest of the observations, the concept of theme was not revisited.

**Identifying Similarities and Differences between English and Spanish**

This section discusses the similarities and differences while teaching academic language in language arts in both English and Spanish. For example, use of the same vocabulary instructional strategies across both languages was evident. In addition, Carla used similar scaffolding vocabulary strategies (i.e. graphic organizers and context clues) across both languages. With respect to differences, two points can be made: 1) Carla used more sentence scaffolds in Spanish to facilitate language production for English speaking students. She also focused more on vocabulary development during Spanish language arts; and 2) there was a lack of instructional resources for instruction
in Spanish language arts (i.e., teacher reference materials and Spanish curriculum guides). Both sections will be discussed below in further detail.

**Similarities—Linking Academic Language in Spanish and English**

Carla had the same definition of academic language during her instruction in both Spanish and English; her practices align across both languages. Vocabulary instruction was a key lesson plan component in both English and Spanish. Carla used similar strategies to teach vocabulary across both languages. For example, as far as vocabulary instruction, Carla pointed out that teaching the use of cognates in both languages of instruction helped students learn new words in English and Spanish. Carla suggested that teaching cognates provided students with a more autonomous way of increasing their vocabulary development:

> [Students] can learn many new words. Because that way they can learn many new words on their own without me having to point out you know words and the other way where I have been pushing vocabulary instruction is synonyms you know teaching those words that are related to one another. (Interview 1, intake interview)

According to Carla, using cognates provided ample opportunities for students’ vocabulary acquisition. In addition, teaching roots and affixes, particularly when instruction is conducted in Spanish, supports students when identifying the meaning of otherwise difficult words. Teaching synonyms, antonyms, and multiple meaning words (polysemous words) are concepts which can be equally facilitated in both languages. They provided students with ample opportunities to scaffold vocabulary development.

Data showed the concept of using multiple meaning words is similar in both languages. In addition, Carla felt by using multiple meaning words, students will be able to appreciate how linguistically-rich Spanish can be:
I wanted to bring we did multiple meaning in the last unit so this kind of carry over into the Spanish so that way they can kind of use that same skill in Spanish and realize that Spanish also can be very diverse and then since we did the little squares. Yeah, the synonyms got them thinking about that and then they are going to have to use some of these words when describing him. They are going to have to figure out. He is pretty determined porque está ensayando. Es determinado porque sigue sus ensayos. Manuel es/tiene un talento [Because he is practicing. He is pretty determined because he continues with his practice. Manuel is/Manuel has talent]. (Interview 8, line 44, think aloud lesson planning interview)

Carla used similar scaffolding strategies (i.e., context clues and graphic organizers) to teach vocabulary across both languages. For example, context clues, as an instructional strategy, are used in both languages to foster vocabulary development. It allowed students to figure out the meaning of the words, and at the same time, models how to use these words for students. Graphic organizers served different purposes. For example, in terms of vocabulary instruction, Carla used the Frayer model to analyze the word (e.g., definition, grammatical category, synonyms/antonyms, and sentence). She also used foldables, which not only facilitated vocabulary instruction; they also mediated concept development providing students structure and organization.

**Differences**

This section will discuss two significant differences. First, Carla used more sentence scaffolds in Spanish to facilitate language production for English speaking students. She also focused more on vocabulary development during Spanish language arts. Second, the lack of instructional resources (i.e. teacher reference materials and Spanish curriculum guides) made planning for Spanish language arts instruction even more demanding.

Carla described planning for language varies in English and in Spanish. In Spanish, English speaking students needed more language scaffolds and guidance due
to their limited Spanish proficiency levels. To increase oral language production during Spanish language arts, Carla pointed out that sentence frames provided necessary language models. These sentence frames facilitate students’ oral classroom interactions, helping them produce complete thoughts:

[In Spanish] the language structures have to be modeled way more, they have phrases but they don’t know how to put phrases together you know they are just so speaking in chunks of languages. They don’t have maybe those connecting verbs to speak or they are still using a social language instead of that academic language they are supposed to be using. (Interview 10, exit interview)

Although these 5th grade students have been in the program for five years, English is still the dominant language inside and outside the school.

It’s different because in Spanish, it is still more just vocabulary where some of them are still learning certain words, so it’s a lot lower than what it would be in English. I think they had more exposure to English so you can be a little more complicated with them. (Interview 1, intake interview)

Carla had to purposely design her lesson plans to counteract the dominance of the English language in her dual language classroom. Carla pointed out students were more exposed to English on daily basis. Therefore, she emphasized more vocabulary instruction in Spanish than English. During Spanish language arts, Carla concentrated on vocabulary development, noting that “if we learn a new word I try to use reuse it several times so that way they hear it in the context and you know you try to motivate students to continuously use it in phrases and things”. However during English language arts, Carla emphasized figurative language instruction:

[In English] I push more of the figuratively language on them but then I asked what do I mean by that. I don’t think they are there in Spanish. I mean some of them are. I don’t know. I just push it more in English for some reason. (Interview 1, intake interview)
Another crucial difference was the lack of instructional resources in Spanish. For example, while English language arts had curriculum guides written by district personnel, Spanish language arts did not. In order to teach Spanish language arts, Carla had to follow the English curriculum guides and adapt Spanish materials accordingly. For example, she spent time searching for materials which were grade appropriate:

I think what makes it difficult like whenever I did go to search for *tono* [tone] y *voz* [mood], like there’s things out there but depends. I mean every website, every source had its own definition, had its own way to find it or it wasn’t appropriate for elementary students you know it was this rigorous college level tone and voice kind of definition so yeah there’s things out there but there’s not a primary source that I can go and be for sure “okay this it.” Because even in English when I wasn’t sure I’m like how do I define what mood and tone is you know. I know I can go specifically to Florida Department of Education website and it’s gonna say “this is what they should know, this is what it means to a fifth grader” and I knew so there’s no contest I’m just gonna use that but in Spanish there’s nothing, it’s just so opened. (Interview 10, line 180, final interview)

The lack of instructional resources and not being paid for performing tasks not required in her job description in Spanish has made planning for language arts in Spanish become time-consuming and challenging.

They didn’t give us any. Do you want these in English? Go ahead if there is a translations we’ll get it for you if not find your Spanish books and send it to us so for me I am not a district specialist so I am going to do the job of that the this district specialist did a lot of research for to compile a list and I as a regular teacher have to become the district specialist for my grade level for DL. I am not getting paid for that. I am not paid for that. That’s what frustrates me. You know what I mean if I went to any other teacher in D. cou*nty* and I said: “You need to tell me what novels you are offering next year and then you are going to write your curriculum guide” they would be like “what?” (Interview 8, line 177, think aloud lesson planning interview)

Carla firmly believed in the goals of the dual language program. However, there was an evident level of frustration attached to being a dual language teacher. She felt
as though as a dual language teacher, she was expected to fulfill different roles in the school, which made her job significantly more difficult. It is important to note, her mainstream teacher counter-parts were not expected to fulfill the same roles.

**Facilitators and Constraints**

As far as facilitators and constraints influencing Carla’s understanding of academic language, this section identifies the standards featured in the curriculum guides as a facilitator. In terms of constraints, this section identifies Carla’s language and content expertise, as well as, state-mandated test. The sections below will discuss these topics in detail.

**Facilitators**

Although not explicitly stated in the data, but mentioned throughout this chapter, the standards featured in the curriculum guides played a crucial role in how Carla taught academic language in the dual language arts classroom. Carla’s understanding of academic language is centered on the standards featured in the curriculum guides designed by the school district. Her understanding of academic language co-exists in tandem with developing concepts linked to the standards featured in the curriculum guides. She did not always follow the curriculum guides verbatim; however, she used the standards to design her instruction. Carla made instructional choices in terms of what she should teach in the curriculum guides. Items chosen from the curriculum guides needed to be appropriate to teach in Spanish and/or English.

Carla: I have to update those. Where did I pull these from? I might have gotten them from the curriculum guide or lesson guide which I can show you and I can show you what I use from it and what I don’t use from it because I don’t follow the district’s guide mainly because I don’t have the books that they are using so I don’t use that but I still make sure that I am following along and making sure that the students are learning what they are learning. (Interview 2, line 87, think aloud lesson plan)
Standards featured in the curriculum guides served as the foundation for Carla’s unit development. While reading Carla’s unit template (Formal observation, field notes, 030314), the standards are positioned at the beginning of her template. For example, while teaching *Elena*, in Spanish, Carla scaffolded the standards below:

LA.5.1.6.7: Use knowledge of familiar base words and affixes (prefixes and suffixes) to determine meaning of unfamiliar words.

LA.5.1.7.7: Compare and contrast elements, settings, characters, and problems in a text.

LA.5.2.1.2: Identify and explain the elements of plot structure, including but not limited to setting character development, problem, and solution. (Formal observation, field notes, 030314)

During this particular lesson, Carla taught the Latin and Greek roots and affixes in Spanish. In addition, she taught summarizing, theme, tone, and mood. Carla’s language objectives were written using both the standards and the story Elena as anchors to guide the implementation of her language objectives.

**Constraints**

This section will discuss two constraints: 1) language and content expertise and 2) standardized testing.

**Language and content expertise**

As Carla reflected upon her practices, she identified limited content knowledge and limited academic Spanish proficiency within the context of language arts as limitations impeding her understanding and teaching of academic language. Carla’s perception of her own content knowledge influences how she viewed her instructional practices, “yeah, right it may just be that I don’t go too far in depth in it but I definitely put out there so that they know you know umm that is there (Interview 10, final interview).
Based on how comfortable she felt teaching the content of the standard, she would either further develop or limit her instruction.

In addition to content knowledge, Carla identified her own academic Spanish language proficiency as a potential constraint. The challenge to find the right Spanish term for discipline-specific vocabulary can be observed in the following conversation which ensued when discussing how to teach the concepts of tone and mood in Spanish using the text *Elena*. Carla could not find the correct Spanish academic word for mood, which is *la voz*.

Carla: We are really going to focus on the mood and tone of the text. I don’t know I think I am going to tell them or I might just give them three options, you know. We say, can we conclude that Elena is showing courage? Could we conclude that Elena is? It would be something like *el, el, el* [the, the, the] “Yo creo que el ambiente es de valentía porque tatata” [I think the setting is bravery because]

Researcher: *El ambiente* [the setting] is like the setting?

Carla: Well, I use it; it’s more like mood?

Researcher: Because tone is *tono*. *El tono de la historia* [The tone of the story] then you would need to find the language for mood right? And you would need to scaffold for that?

Carla: Yeah, I try not to confuse them because you can use *ambiente* for setting and then for setting I also saw [book publisher] uses el *escenario también* [scenario as well]

Researcher: But I think mood has a specific, specific.

Carla: Is it *imaginario* [imaginary]? *¿Estado de ánimo*? [state of well-being].

(Interview 4, lines 114-124, think aloud planning session interview)

In this example, Carla went from setting, to scenario, to imaginary while trying to find the academic word for mood in Spanish. As explained in Chapter III, Carla’s higher education was conducted in English only settings where limited attention may have been provided to developing academic Spanish proficiency. Carla reflected “the tone
they got very well from the story, the mood from the story we really didn’t analyze the authors words in depth so that’s something we really still need to work on (Interview 5, video elicitation interview).

Carla’s self-identified limited content and Spanish academic language proficiency influenced how she managed to integrate language and content in her language arts classroom taught in English and Spanish. For example, Carla pointed out, “this one [drawing a conclusion] they have the clues and they need to make a conclusion. So I don’t know I kept thinking like: “Based on the clues, so, so, and so happens.” I was struggling” (Interview 6, think aloud lesson planning interview). In the former example, Carla seemed to understand the concept of drawing a conclusion. In addition, she was able to identify the need to integrate language and content so that students can produce language and engage in classroom discussions. She added, “what kind of frame [sentence] I would have to give to them?” (Interview 6, think aloud lesson planning interview). It seemed as though, Carla had finally understood how to integrate language and content in her language arts lesson plan, and she decided to incorporate language objectives as part of her lesson plan.

Yes, this all made sense it’s perfect but when I am planning it’s still very hard to plan for language; you always just want to plan for content. I am just like “I am going to teach author’s purpose” [sarcastic intonation] but I need to understand author’s purpose but like it was hard to think of [how do I say it] like of them what you wanted them to, what you wanted them to speak. The way you know they understand it; it’s the way they speak or the way they are writing it. So finally, I am like I think I get it [laughs]. So honestly, it’s been maybe like a month or maybe two that I started putting them on my lesson plans because I finally understood where to put it and how to use it. (Interview 2, think aloud planning lesson)

 Integrating language and content during language arts instruction in either Spanish or English represented a constraint for Carla. Although she did consider the
language demands of her content objectives, the challenges this integration brings along while teaching in both languages are tangible. Nonetheless, she counteracted these challenges by attempting to write language objectives. In particular, Carla focused on writing sentence frames to help students learn the language skills they are required to master (e.g., making inferences, drawing conclusions, identifying cause and effect). Carla did point out, however, that she taught certain concepts such as figurative language in English due to the somewhat limited Spanish proficiency of her students. Despite the limitations, she strived to increase her knowledge base using multiple strategies to gain a deeper understanding of the concepts to be taught; in particular, she focused on concepts where she felt she needed further support.

I mean I have to research it you know I go one and I just find as much as I can so that you know the kids don’t miss out because they have to learn it you know umm or it’s just speaking to another colleague that might have a little bit more knowledge and you know just get that clear understanding. (Interview 10, lines 166-170, final interview)

The limitations Carla encounters are counter-balanced by her robust beliefs concerning the need to implement a strong dual language program in her school district in order to promote bilingualism, biliteracy, and cross-cultural practices while working with dual language students become bilingual individuals in an increasingly multilingual society.

**Standardized testing**

High-stakes standardized testing drove the district curriculum, and ultimately, guided instruction during language arts in both English and Spanish. Towards the end of the semester, she found herself teaching to the test (i.e., reading comprehension skills to be tested).
The assessment sometimes it doesn’t match what we teach so we have to make sure they know the language of the test so there are certain questions the way they are phrased or the distractors teaching just the test taking strategies not necessarily this is reading content. It is just how to eliminate content. Look for this key word, underline here that kind of stuff”.

(interview 7, lines 11-12, video elicitation)

If Carla were to design lesson plans to scaffold academic language instruction alongside with language arts content instruction, then her lesson plans may have not explicitly reflected the mandates of the test. High-stake testing took a toll on Carla’s instruction since the curriculum guides were designed to meet the content demands of the test and limited attention was given to scaffolding academic language.

**Summary**

Carla’s multiple definitions of academic language is congruent with the literature, that is, academic language has been defined in different way for different purposes. Both vocabulary instruction and implementing language objectives illustrated by writing sentence frames are ways in which Carla connected her understanding of academic language to classroom practices. As far as similarities, similar vocabulary instructional strategies and similar scaffolding vocabulary strategies (i.e. graphic organizers and context clues) were used across both languages. In terms of differences, Carla used more sentence scaffolds during Spanish language arts to facilitate language production for English speaking students. In addition, she focused more on vocabulary development during Spanish language arts. The lack of instructional resources (i.e. teacher reference materials and Spanish curriculum guides) has also been identified as a difference. As far as facilitators influencing how Carla’s understanding of academic language standards featured in the curriculum guides, guided her instruction of academic language. Carla’s language and content expertise in both English and
Spanish, as well as, state-mandated testing were identified as constraints. In the following chapter a detail discussion of analysis of the results section will be discussed in detail.
Figure 4-1. A story’s sequence of events.

Figure 4-2. Vocabulary Frayer Model. Photo courtesy of author.
CHAPTER 5
DISCUSSION

This study took place in a 5th grade language arts classroom taught within the context of an English and Spanish dual language program. This study explored how a dual language teacher understood academic language, and how she connected her understanding of academic language to her classroom practices in a language arts classroom. Academic language has been identified as a key factor in predicting students’ academic success (Collier, 1995; Haneda, 2014), and how teachers understand academic language might affect their approach to instruction (Aguirre-Muñoz et al., 2008). This is important because limited research has been conducted exploring a teacher’s understanding of academic language in a language arts within the context of an English and Spanish dual language program. Using language as action (van Lier & Walqui, 2012) and pedagogical language knowledge (Bunch, 2013) as theoretical frameworks, this issue was explored in depth. This study provided insight on how to implement meaningful and effective language and content instruction in a 5th grade language arts classroom taught in English and Spanish.

Primary data sources were teacher interviews. A total of fifteen hours of interview data were audiotaped and then transcribed. Secondary data sources included: informal and formal observations, field notes, artifacts, video-taped classroom observations, memos, and archival classroom artifacts. Using Charmaz’s (2006) grounded theory methodology, a careful on-going analysis was conducted for the ten teacher interviews. For the purpose of this investigation, a case study methodology was used, with the teacher as the unit of analysis (Baxter & Jack, 2008). The four main research questions were:
1. How does a dual language teacher understand academic language?

2. How does a dual language teacher connect her understanding of academic language to her classroom practices?

3. What similarities and differences, if any, exist in the teacher’s descriptions of academic language in relation to her classroom practices when teaching in Spanish and English?

4. What are the facilitators and constraints that a teacher identifies as influential on her understanding and teaching of academic language?

The sections below will address these questions by discussing two major themes: 1) academic language as agency; 2) sentence frames as facilitating and preventing agency; and 3) pedagogical language knowledge (PLK), content knowledge, and Spanish proficiency.

**Academic Language as Agency**

Carla’s definition of academic language reflected an emphasis on encouraging students to develop their expression of agency while engaging with texts, activities, peers, and Carla herself. “Expression of agency”, is described by van Lier & Walqui (2012) as the ability to act. Language becomes intrinsic to how individuals act and react to the world, and it plays a crucial role in terms of developing this expression of agency. The ability to act is embedded within the context of a specific environment. Through the use of language individuals are able to acquire, process, and negotiate information, thus language becomes a tool for meaning-making processes and communication.

Carla’s definition of academic language is connected to how students would be able to use language in a language arts classroom taught in English and Spanish. Her understanding of academic language seemed to embrace a sociocultural perspective (Vygotsky, 1978), wherein peer and teacher interaction lead to the acquisition of knowledge. Opportunities to develop student academic language use were not only at
the center of this interaction, but they also guided Carla’s definition of academic language. She defined academic language across three dimensions: formal and proper language use, discipline-based language, and functionality. Each one of these dimensions have also been discussed in the literature (see Anstrom et al., 2010; Bailey, 2007; Bunch, 2006; Galguera, 2011; Gottlieb & Ernst-Slavit, 2014; Haneda, 2014; Scarcella, 2004; Schleppegrell, 2007; O’Hara et al., 2013; Zwiers, 2007). Carla’s understanding of academic language was guided by: 1) whether students were producing complete and formal sentences in oral and written formats; 2) whether students were using subject-specific words as they engaged in classroom activities; and 3) whether students were using discourse patterns associated with specific language functions (e.g., to describe, to compare and contrast) (Bailey, 2007; Gottlieb & Ernst-Slavit, 2014). With respect to the first point, in the classroom, academic language as formal language use is often positioned as distinct from informal and/or social language (e.g., Gebhard & Willet, 2008). Relative to the second point, research has indicated that teachers are inclined to focus their instruction of academic language to subject-specific words within the context of a particular academic discipline (Bruna et al., 2007). All three dimensions connected Carla’s understanding of academic language to students’ expression of agency; in other words, students’ ability to act in the classroom (van Lier & Walqui, 2012). Carla made an effort to provide students with opportunities to use academic language in oral and written formats during classroom activities.

For example, while teaching subject-specific words, vocabulary instruction played a crucial role in Carla’s English and Spanish language arts classroom. Vocabulary instruction became a significant instructional practice in Carla’s classroom (see August
& Carlo, 2005; Beck & McKeown, 2007; and Carlo et al., 2009). She emphasized vocabulary instruction because she believed it would facilitate the acquisition of the content-specific words students needed to engage with the content in meaningful ways. As a result, she strove to provide students with ample opportunities to engage in activities featuring content-specific words. For example, students were exposed to multiple vocabulary scaffolding strategies (e.g., graphic organizers and context clues), in addition to, vocabulary learning strategies (e.g., roots and affixes, multiple meaning words, and synonyms and antonyms). As students developed their vocabulary, they were able to collaborate with their peers using the vocabulary. If students were engaging with the material, using the vocabulary Carla had scaffolded (i.e., speaking, listening, reading, and writing in class), She perceived these actions as students using academic language. By doing so, it could be suggested that students were demonstrating their “expression of agency” because they were able “to act” using the vocabulary words learned during language arts instruction.

Carla’s lesson plans were designed around teaching subject specific words and words linked to specific language functions. She fostered students’ expression of agency by scaffolding specific discourse patterns associated with language arts (Schleppegrell, 2001). Considering how Carla designed her lesson plans, it could be argued that her understanding of academic language echoed the concept of register, wherein, specific patterns of communication were used given the context of a core subject area such as language arts (Ogrady et al., 1989). Carla’s approach to academic language instruction provided students with opportunities to use academic language
forms in oral and written formats in language arts within the context of an English and Spanish dual language program.

Carla’s lesson plans were designed based on how she decided to implement the curriculum guides mandated by the district. She attempted to provide students with access to the language arts curriculum so that they would be able to master the content delivered. These curriculum guides were written in response to the content demands of the Language Arts Florida Standards (LAFS). The standards featured in the curriculum guides were based on a functional perspective (see Bailey, 2007). In fact, verbs such as to explain, to compare and contrast, and to infer were ubiquitously found in the standards. Carla taught what she perceived as academic language based on the content covered by the 5th grade language arts curriculum guides. State mandated standardized testing guided the content covered in the curriculum guides. Testing was conducted in English, and it primarily focused on testing students’ reading comprehension skills. With no access to curriculum guides written to meet the content demands of Spanish language arts, Carla taught language arts in Spanish using curriculum guides written exclusively in English. Needless to say, these curriculum guides failed to address the skills needed to meet the academic demands in a language arts classroom taught in Spanish. While teaching language arts in a dual language classroom, Carla had to negotiate how to use these curriculum guides in order to facilitate academic language and content instruction in both language. It could be argued that teachers’ understanding of academic language is context-bound. It will develop within the context of the academic subject they are teaching. Vocabulary instruction plays a crucial role in terms of how teachers understand academic language.
Teachers need further instructional support in order to continue to develop their understanding of academic language.

**Sentence Frames as Facilitating and Preventing Agency**

Sentence frames were a central tool in Carla’s language arts classroom to scaffold oral and written communication about content. Sentence frames are sentence structures with the content words eliminated (Levine, Lukens & Smallwood, 2013). They model the language students are expected to use according to a lesson’s language objectives. Language objectives are implemented in a lesson plan so that students can acquire the academic language needed to participate in lesson activities and to develop “vocabulary, language structures, and cognitive language necessary to perform well in school” (Herrera & Murry, 2011, p. 285). The sections below will discuss the role of sentence frames in Carla’s teaching and how the use of sentence frames in her classroom both encouraged and limited students’ expression of agency with academic language. In the sections below the following will be discussed: 1) the role of sentence frames; 2) Carla’s pedagogical language knowledge; and 3) Carla’s content knowledge and Spanish proficiency.

**The Role of Sentence Frames**

Sentence frames were an instructional staple in Carla’s dual language language arts classroom. Carla used sentence frames as language scaffolds to provide for students what she identified as academic language. Carla’s implementation of sentence frames in her lesson plans responded to the content demands of the objectives identified in the standards of the curriculum guides. The role of sentence frames was to provide students with more extended language so that they could explain the concepts acquired in the lesson (e.g., vocabulary words and discourse patterns related to specific
language functions). For instance, sentence frames were used to offer the language students needed to discuss the meaning of words (e.g., definitions, synonyms, antonyms, and multiple meaning words). English was still the dominant language in Carla’s classroom, and it was used predominantly during student interactions. Dual language students in Carla’s 5th grade classroom were acquiring Spanish in an English dominant context (de Jong & Howard, 2009). Carla mentioned that she used sentence frames more during Spanish language arts because it created opportunities to increase Spanish language production amongst students. For those students with limited Spanish language proficiency, these sentence frames were suitable. Carla believed that during Spanish language arts more language scaffolds were required so that students acquired the language they needed to engage in different classroom activities (Diaz-Rico, 2008; Gottlieb & Ernst-Slavit, 2014).

For Carla, the use of sentence frames permitted her to begin the exploration of “a different way of thinking about what language is and what language does” (van Lier & Walqui, 2012, p. 5). By implementing sentence frames, she provided students with the language forms needed to participate in oral and written academic classroom interactions (van Lier & Walqui, 2012). It seemed as though, Carla began to think about language from a perspective of how it could be used to facilitate student participation in the classroom, and how students could use language as a tool to explore meaning-making processes.

Sentence frames also allowed Carla to leverage what she understood as academic language instruction in her classroom. By implementing sentence frames, she was able to exercise her own ability to act while teaching academic language. Using
sentence frames, she was able to teach content-specific vocabulary, and model the language forms students needed to discuss the concepts learned during language arts in both English and Spanish.

**Agency versus Participation**

van Lier and Walqui (2012) argued that agency often leads to language growth for those students who are engaged in meaningful classroom activities. When students work on classroom activities that encourage “perception, interaction, planning, research, discussion, and co-construction of academic products of various kinds” (p.4), language development takes place through interaction with their teacher and their peers. Agency means providing opportunities for students to engage in meaningful activities that cultivate their interest and encourage language growth (van Lier & Walqui, 2012).

Carla’s intent was to promote student agency with and through language by using sentence frames. The nature of these sentence frames, however, did not always support this goal. Typically, students were tasked with reading, repeating, and filling in the blank spaces featured in the sentence frames. However, sentence frames limited students’ agency because classroom activities emphasized repetition over language analysis and growth. Thus Carla’s implementation of sentence frames prompted students to use language in a repetitive manner. For example, when students were asked to identify the theme of the story. Carla provided, “*Yo creo que el tema de la historia es___porque___*” [I think the theme of the story is _____ because_____] as the sentence frame.

While not supporting opportunities for extended language use, the sentence frames did seem to provide opportunities for students to participate in the lesson. By using sentence frames, students had the language needed to engage in classroom
activities even if it meant simply re-producing the language Carla had previously scaffolded for them. This finding suggested that it is important to distinguish between participation and agency when using sentence frames to teach academic language. Certainly, students were able to participate in classroom interactions because Carla was providing the language needed during instruction through sentence frames. However, the nature of the sentence frames prevented students from using academic language in meaningful, critical, and creative ways. Daniel et al., (2015) pointed out that over-scaffolding during classroom instruction could limit collaboration and comprehension as students engaged in meaning-making processes. Researchers discovered that students were more interested in finding the right answer instead of focusing on the process that would lead them to engage with the new knowledge encountered (Daniel et al., 2015). The use of sentence frames seemed to have transformed Carla’s understanding of academic language into a motionless linguistic transaction; that is, she modeled specific academic language forms without necessarily “allowing for students’ individual and group choices and creativity” (van Lier & Walqui, 2012, p.4) in terms of how to engage with language instruction.

Carla’s own expression of agency within the context of her language arts classroom was also limited by using sentence frames because they did not allow her to critically analyze the language use in this context. Her dependence on sentence frames prevented her from identifying and teaching language skills associated with the concepts taught, such question patterns, verbs tenses, pronoun usage, sentence formation, and subordinated clauses (Scarcella, 2008). For example, when Carla implemented sentence frames, students were instructed to simply use these sentence
frames by filling-in-the-blanks. The goal was to produce a complete sentence. No further instruction was given to the language structures and forms associated with the sentence frames.

**Pedagogical Language Knowledge, Content Knowledge, and Spanish Academic Language**

Carla depended on the implementation of sentence frames during language arts instruction. One explanation for this strategy could be attributed to her own limited “pedagogical language knowledge” (PLK) (Bunch, 2013). Bunch described PLK of mainstream teachers “as knowledge of language related to a particular discipline of teaching and learning situated in a specific context” (Bunch, 2013, p. 307). He postulated that PLK is created, learned, and acquired within the context of the subject area where teaching and learning are enacted. Teachers’ access to PLK is important because it allows them to critically explore the functions of language in academic contexts, and discover how language is used to represent knowledge (Galguera, 2011). The following sections will discuss two points: 1) how sentence frames illustrated Carla’s limited PLK; and 2) how sentence frames illustrated Carla’s limited content knowledge and Spanish proficiency.

**Sentence Frames as PLK**

This study suggested that limited PLK may affect the extent to how teachers create opportunities for explicit language instruction and language analysis. Carla’s PLK could be described as emerging. Although she was able to identify language functions, her examples did not always match the language function selected for the language objectives. For example, she planned on teaching description as one of the language functions in her lesson plan. She referred to “describing words” as an “opinion kind of
word.” In this particular case, she seemed to imply that when individuals describe something, they will do so based on their opinion. The inconsistency here lies in that describing and providing an opinion are two different language functions. While teaching cognates, Carla’s sentence frames simply established that two words were similar, and hence, were cognates. She did not provide students with tools to analyze how English-Spanish cognates were similar and/or different (i.e., at a morphological and/or phonological level). She had a limited understanding in terms of how to identify similarities and differences between English-Spanish cognates, and how to explicitly teach these similarities and differences to her students so that they could apply what they have learned as they encounter new words in both languages.

Carla’s access to PLK in English and Spanish within the context of language arts might have: 1) provided different opportunities to engage in explicit language instruction; and 2) explicit language analysis. If teachers had the opportunity to understand how language works given the context of their subject area, and how language is used to convey knowledge (Bunch, 2013), they would most likely feel equipped to incorporate explicit language instruction as a significant component during the delivery of their lesson. In addition, explicit language instruction in both English and Spanish may promote opportunities for students to analyze how language works in the classroom. As far as explicit language instruction, Carla, for example, could have created opportunities to integrate language and content. Carla could have scaffolded the concepts taught (i.e., author’s point of view and identifying the theme of the story), and at the same time, she could have designed activities wherein students could engage with the language needed to understand these concepts in meaningful ways.
In terms of explicit language analysis, Kelu (2013) and Shin (2009) suggested that students’ understanding of the complexities of academic language could develop their awareness insofar as to enable them to make fitting linguistic choices in response to the content demands taught in language arts. Implementation of sentence frames, without providing meaningful opportunities for students to develop their own metalinguistic awareness failed to foster students’ language growth. In this respect, metalinguistic awareness means, “the understanding and expression of the nuances and uses of languages, including the process of reflecting upon its features and forms” (Gottlieb & Ernst-Slavit, 2014, p.193). Not providing opportunities for students to develop their metalinguistic awareness limits their ability to acquire the linguistic tools that would facilitate their understanding of how language works as they encounter new information. Research suggested that academic language instruction should involve the scaffolding of all linguistic features needed to make sense of the concepts taught. Studies suggested that instruction of language form and function should co-exist within the context of a particular academic discipline (see Aguirre et al., 2010; Bruna et al., 2011; Kelu, 2013; Slater & Mohan, 2010; Shin, 2009). Further exploration of whether engaging in language analysis, within the context of a language arts classroom, would facilitate meaningful content and language instruction is warranted.

**Content Knowledge and Spanish Academic Language**

The nature and use of sentence frames in Carla’s language arts classroom illustrated two additional points—the importance of teachers’ content knowledge (Shulman, 1987) and teachers’ academic language proficiency in a dual language program to effectively engage students in academic language development. First, when Carla did not have a clear understanding of the concept she was teaching, it affected
the delivery of information during instruction. For example, the curriculum guides required Carla to teach root words and affixes as part of the language arts content to be covered in 5th grade. When she did not fully understand the concept of root words and affixes, she asked students to use sentence frames to simply identify the meaning of the root word, the prefix, and/or the suffix. Little instruction, however, was provided to scaffold students’ language skills so that they could understand how to use these root words and affixes to determine the meaning of unknown words.

Second, growing up in Texas, Carla had limited exposure to Spanish in school settings. As a result, her own lack of familiarity with academic Spanish affected her ability to certain concepts in Spanish. For example, Carla had intended to teach mood and tone during Spanish language arts, so she first had to conduct an extensive online search to find the academic word for mood in Spanish which was unknown to her. Then, she needed to make sure she understood the concept well enough so that she could explain during Spanish language arts. If Carla had fully understood the concept of mood in English, perhaps she would have only needed to find the academic word in Spanish (i.e., *la voz*). However, not fully understanding the concept of mood led to Carla not feeling confident enough to teach what she had intended in Spanish. In addition, not knowing that mood meant *la voz* in Spanish, limited her search options when she was planning her lesson. When these challenges materialized during classroom instruction, Carla’s ability to fully engage students in the delivery of her lesson was minimized. In fact, Carla shifted away from teaching the mood of a literary text because she did not fully understand the concept of mood. A teacher teaching in English and Spanish should be equipped with high levels of language proficiency in both languages to appropriately
meet the goals of the dual language program. Spanish proficiency might ensure that
instruction provided promotes an additive linguistic and positive cross-cultural
classroom environment. Spanish proficiency would facilitate the attainment of high
levels of bilingualism and biliteracy, and grade-level academic achievement (Christian,
1996). Making sense of academic language within the context of a language arts
classroom taught in both Spanish and English is indeed a complex journey. Despite the
bureaucratic and pedagogical demands imposed by the school district, which often
undermined the academic goals of the dual language program (e.g., biculturalism,
 bilingualism, biliteracy, and cross-linguistic competence), Carla was willing and ready to
engage in a lengthy and difficult learning process.

Summary

Students’ expression of agency was embedded at the core of how Carla
understood academic language within the context of a language arts classroom taught
in English and Spanish (see Brooks & Thurston, 2010; Gee, 2004; Ernst-Slavit &
Mason, 2011; Vygotsky, 1978). She used sentence frames to meet the language
demands of the content featured in the language arts curriculum. These sentence
frames provided opportunities to encourage students’ use of academic language in oral
and written formats. Sentence frames became an instructional staple in her
understanding of academic language. Carla used sentence frames explicitly designed to
scaffold the language students needed to participate in the classroom. It seemed as
though a sociocultural dimension of academic language was crucial to understand how
Carla connected her understanding of academic language to her instructional practices
(Vygotsky, 1978). However, students’ expression of agency was hindered because they
were not provided with meaningful opportunities to analyze how language actually
worked within the context of these sentence frames (Galguera, 2011; Bunch, 2013). More often than not, these sentence frames became language exercises wherein students were tasked to fill in blank spaces with information they had learned. Sentence frames were used predominantly among native English speakers who tended to rely on language scaffolds during Spanish language arts.

The use of sentence frames was also perceived as a limitation of Carla’s understanding of academic language. She excluded grammatical structures and forms used as important components of academic language (Scarcella, 2008) in both English and Spanish. Her dependence on sentence frames illustrates her limited pedagogical language knowledge (Bunch, 2013), need for further clarification in terms of content knowledge (Shulman, 1987), and limited Spanish proficiency. These limitations had serious instructional implications (i.e. brief, incomplete instruction, and/or avoiding the topic altogether). Attention to how language works within a particular academic setting is imperative to assist native Spanish and English speakers who find themselves in the process of developing academic language competencies in language arts within the context of a dual language program (Galguera, 2011).

Teaching language arts within the context of an English and Spanish dual language program called for Carla to be prepared to address the academic language and content demands encountered in language arts taught in both English and Spanish. Her limitations often resulted in minimizing or avoiding instruction of certain concepts altogether. Carla’s limited pedagogical language knowledge (Bunch, 2013), limited content knowledge (Shulman, 1987), and limited academic Spanish proficiency was illustrated by how she used sentence frames during language arts. Limited
understanding of all three concepts seemed to have adversely impacted her expression of agency while teaching academic language in a language arts classroom. Her use of sentence frames appeared to have inhibited the linguistic choices she made while teaching academic language within the context of an English and Spanish dual language program. Carla strove to find meaningful ways to counteract her own limitations and improve her instructional practices to better serve the content and language needs of her dual language students.
CHAPTER 6
IMPLICATIONS, LIMITATIONS, AND FURTHER RESEARCH

The results of this study provided insight into a teacher’s understanding of academic language in a language arts classroom within the context of an English and Spanish dual language program, and how she connected her understanding of academic language to her classroom practices. These findings were unique in that academic language has been explored: 1) within the context of two subject areas: science (see Bailey, 2007; Bruna, 2007, Slater & Mohan, 2010) and math (see Schleppegrell (2007); Berry & Kim (2008)). To date, limited research has been conducted in the area of language arts. Moreover, a teacher’s understanding of academic language has yet to be explored within the context of a dual language arts classroom taught in both English and Spanish. Key implications, limitations, and further research will be discussed in the sections below.

Implications

Academic Language as Agency

Students’ “ability to act” was illustrated by how Carla teaches vocabulary and how she implemented sentence frames throughout her instruction. Vocabulary instructional and scaffolding strategies and the implementation of sentence frames were key components in Carla’s instruction which occurred in both languages. It is important to note the pivotal role of vocabulary instruction in order to scaffold academic language use in the classroom. However, academic language should not be restricted to vocabulary instruction only. As data analysis suggested, academic language encompassed all the linguistic tools available to foster teachers and students’ “ability to act” (van Lier & Walqui, 2012). District’s curriculum guides guided a teacher’s
understanding of academic language in a language arts classroom taught in English and Spanish. However, these curriculum guides were designed to meet the content and testing demands of monolingual classrooms. Curriculum guides designed to serve the academic, cultural, and linguistics needs of bilingual students should be written in English and Spanish, and they should be designed to meet both the language and the content demands of dual language classrooms. They should also provide ample opportunities for teachers and students to engage in language learning. Teachers and students should have a deep understanding of how language works within the context of a specific academic discipline in order to actively and critically engage in classroom activities. A teacher’s understanding of academic language should foster a balanced relationship between class participation and language structures-grammatical forms. However, emphasis of one-over-the-other, could result in instructional practices where language becomes subservient to content.

**Sentence Frames as Facilitating and Preventing Agency**

The use sentence frames without providing tools to engage in language analysis could hinder teacher’s “expression of agency” (van Lier & Walqui, 2012) by turning academic language use into a motionless transaction due to limited opportunities for meaningful language instruction. In this study, the use of sentence frames hindered the teacher’s ability to actively and critically engage with the language required to facilitate concepts taught in a language arts. Sentence frames did scaffold student participation; however, they became rote language exercises providing limited opportunities to engage in language and content learning during classroom activities. Sentences frames are used to a greater extent during Spanish language arts than English language arts. Although language equity is significant issue in a dual language classroom (Lindholm,
English, more often than not, will be considered the dominant language for Spanish and English speakers alike. A dual language teacher should take note of the relationship between both languages and purposely create equitable spaces for academic language teaching and learning in the classroom. In addition, Spanish speakers may feature high language proficiency in terms of social language skills; however, they may need further support learning and negotiating academic language in both English and Spanish; therefore, they may also rely on sentence frames in order to participate in oral and written classroom interactions.

**Pedagogical Language Knowledge, Content Knowledge, and Spanish Academic Language**

Dual language teachers assigned to teach a subject area in both languages (i.e. English and Spanish) need further instructional support in terms of content knowledge (Shulman, 1987) and pedagogical language knowledge (see Bunch, 2013; Galguera, 2011). Teachers need to effectively scaffold the academic language required in the classroom to help students understand and manipulate discipline specific concepts. Additional support as far as developing and clarifying content knowledge and pedagogical language knowledge creates implications for teacher preparation programs. Teacher preparation programs should strive to design and implement courses designed to facilitate pre-service and in-service teachers' understanding of the academic language and content demands in a dual language classroom. As the demand to implement meaningful and effective dual language programs increases nationwide, the need for in-service and pre-service teachers who are qualified to meet
the academic needs (i.e., language and content) of dual language students will continue to grow.

**Limitations and Further Research**

The purpose of this case study was to explore a teacher’s understanding of academic language, and how she connected her understanding of academic language in language arts within the context of an English and Spanish dual language program. As a descriptive study, this work did not intend to make an extensive generalization of the topic analyzed. This study features one bilingual-teacher, Carla. She was the only 5th grade teacher teaching language arts at Talentos Elementary in both English and Spanish. The systematic investigation of teachers’ understanding (i.e., a larger sample size) of academic language may allow for greater insight on how academic language in a language arts classroom within the context of an English and Spanish dual language program is understood. Furthermore, students’ voices regarding academic language, though important, are not featured in this analysis. Therefore, it would be significant to explore teacher’s understanding of academic language and how it is reflected on students’ academic outcomes. In addition, it would be significant to explore in detail the role of professional development efforts tailored specifically to meet the language and content needs of dual language teachers. Finally, as the demand for dual language programs continues to increase, further research on the role of teacher preparation programs nationwide is much needed. It is important to explore how in-service teachers willing to meet the instructional needs of dual language students are being prepared in colleges and universities nationwide.
Informed Consent

Protocol Title: A dual language teacher’s understanding of academic language in a 5th grade language arts classroom.

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:
This study explores a teacher’s understanding of academic language, and how she connects her understanding of academic language in language arts within the context of an English and Spanish dual language program.

What you will be asked to do in the study:
I will conduct 20 interviews total, 10 per teacher that will last approximately 1 hour to 1 ½. These interviews will be audio-recorded. Of these 10 interviews, 2 interviews will be conducted as follows: one at the beginning of the data collection process, and another one at the end of the data collection process; 4 interviews will be audio-recorded think aloud lesson planning sessions and these interviews will be conducted when the teachers plans for their weekly unit. Finally, I will conduct 4 video-elicited interviews and these video-elicited interviews will take place within 24 hours after the last observation for the weekly unit has been completed. In addition, I will be audio-recording and video-taping 4 complete language arts units per teacher, 2 units in February/March (one in Spanish/one in English), and 2 units in April/May (one in Spanish/one in English). If additional observations are needed, 2 more weeks of observations will be conducted at the end of May per teacher, using field notes only. I will conduct 4 informal observations per teacher, 2 in English and 2 in Spanish at the beginning of each unit. These informal observations will take place the week before each formal observation. These observations will not be neither audio-recorded nor video-taped. I will also collect relevant archival school data such as assignments, texts used, worksheets handed out as part of the lesson. I will not be collecting any individual student information. Because the classroom does contain students, I have to obtain consent from the parents while conducting video-taped observation. Teachers will be video-taped while teaching in the classroom, and although the camera will be directed only at the teacher, students are still be present during instruction, therefore, parental consent is required.

Time required:

Risks and Benefits:
There are no risks involved in this study. This research study will provide important insight on how teachers construct their understanding of the language used during their instruction in a dual language program, in particular, within the subject area of language arts, and how they connect this understanding with their practices.

Compensation:
There is no compensation in this study.

Confidentiality:
Your identity will be kept confidential to the extent provided by law. You will be assigned a pseudonym during this study. The document connecting your name and the pseudonym will be kept in a locked file under my supervision at all times. When the study is completed and the data have been analyzed, the list will be destroyed. Your name will not be used in the study. All of the data collected will be confidential and will not be shared with supervisors or other colleagues without your permission. As for per the video and audio recordings, the electronic data will be saved on a device that has appropriate security safeguards with availability limited to only the researcher through password protection, encryption, and automated system updates.
of the most recent anti-virus and firewall protection. All data will be archived for the required minimum three years after the study has been completed, and then, they will be destroyed.

**Voluntary participation:**
Your participation in this study is completely voluntary. There is no penalty for not participating.

**Right to withdraw from the study:**
You have the right to withdraw from the study at any time without consequence.

**Whom to contact if you have questions about the study:**
If you would like to receive a report that summarizes your case study, you may request one and we will send one to you. If you have any concerns, you may contact the researcher: Katherine Alva by phone at [phone number] or by e-mail [email address].

**Whom to contact about your rights as a research Carla in the study:**
IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.

**Agreement:**
I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Carla: __________________________ Date: __________
Principal Investigator: __________________________ Date: __________
December 10th, 2013

Dear Dual Language Teacher,

I am a doctoral candidate in the School of Teaching and Learning, College of Education at the University of Florida and am conducting a research study for my doctoral dissertation on how teachers construct their understanding of the language used during instruction in the subject area of language arts within the context of a dual language program, and how they connect their understanding to their classroom practices. At this time, I would appreciate your voluntary participation in this study. Your participation in this research study will provide important insight on your dual language program.

You have been selected as a case study teacher in this research project. This research project will take place from January 2014 to May 2015. I will conduct 20 interviews total, 10 per teacher that will last approximately 1 hour to 1 ½. These interviews will be audio-recorded. Of these 10 interviews, 2 interviews will be conducted as follows: one at the beginning of the data collection process, and another one at the end of the data collection process; 4 interviews will be audio-recorded think aloud lesson planning sessions and these interviews will be conducted when the teachers plans for their weekly unit. Finally, I will conduct 4 video-elicited interviews and these video-elicited interviews will take place within 24 hours after the last observation for the weekly unit has been completed. In addition, I will be audio-recording and video-taping 4 complete language arts units per teacher, 2 units in February/March (one in Spanish/one in English), and 2 units in April/May (one in Spanish/one in English). If additional observations are needed, 2 more weeks of observations will be conducted at the end of May per teacher, using field notes only. I will conduct 4 informal observations per teacher, 2 in English and 2 in Spanish at the beginning of each unit. These informal observations will take place the week before each formal observation. These observations will not be neither audio-recorded nor video-taped. I will also collect relevant archival school data such as assignments, texts used, worksheets handed out as part of the lesson. I will not be collecting any individual student information. Because the classroom does contain students, I have to obtain consent from the parents while conducting video-taped and audio observations in the classroom. Teachers will be video-taped while teaching in the classroom, and although the camera will be directed only at the teacher, students are still be present during instruction, therefore, parental consent is required.

There are no risks involved in this study. If you agree to participate, your work will be coded for the purpose of data analysis and your privacy will be protected. All of data collected will be confidential and will not be shared with supervisors or other colleagues without your permission. The list connecting your name to your code number will be kept in a secure place where I will only have access to it. Your identity will be kept confidential to the extent provided by law. Your participation in this study is completely voluntary. There is no penalty for not participating, and you have the right to withdraw from the study at any time without consequence. Your experiences would help us improve the program for future educators.

If you would like to receive a report that summarizes your case study, you may request one and we will send one to you. If you have any concerns, you may contact Katherine Alva by phone at [redacted] or by e-mail [sanz@ufl.edu]. If you have questions about your rights as a research
Carla in a study, you can also contact the UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250 (Phone 352-392-0433).

Sincerely,

Katherine Alva, Researcher.

I have read the information describing the research project. I voluntarily agree to participate in this study, and I have received a copy of this description.

__________________________________________  ________________
Name                                          Date
APPENDIX C
INITIAL INTERVIEW PROTOCOL

1. Tell me more about yourself and your professional as well as your teaching experiences.

2. What does language mean to you? Could you define language in your own words? How do you think language is learned?

3. Describe the role that language plays in your classroom

4. Think about the language you use for the purpose of instruction during language arts, how would you describe this language? How does this type of language look like in your classroom?

5. Describe your thoughts, as far as language development goes, when you plan your lesson in Spanish language arts?

6. Describe your thoughts, as far as language development goes, when you plan your lesson in English language arts?

7. Tell me how do you teach vocabulary in Spanish language arts?

8. Tell me how do you teach vocabulary in English language arts?

9. In combination with vocabulary instruction in English and Spanish, what other focus do you have as far as the language of instruction in English and Spanish?

10. Tell me how do you design language arts activities to support language development in both English and Spanish?
APPENDIX D
LIST OF CODES

A. TEACHER DEFINES ACADEMIC LANGUAGE.
   A.1. Teacher’s definition of academic language
   A.1.1 Teacher defines academic language as formal language versus informal language: Teacher makes a distinction between the use of formal language versus informal language when she defines academic language.

   A.1.2 Teacher defines academic language as words which are subject specific (words that go with the subject). Teacher suggests that academic language is speaking within a specific context.

   A.1.3 Teacher defines academic language as words linked to a specific language function: For example, according to the teacher, cause and effect, inference have a very specific language. In language arts: what kind of language you would have to use in order to embody that of an inference in you know in any other skill or strategy

B. TEACHER IDENTIFIES THE LANGUAGE-FOCUS OF HER INSTRUCTION.
   B.1. Teacher identifies the language function taught in the lesson. Language function, that is, what students are “expected to do with language" and the purposes for which language is used to communicate (Gottlieb & Ernest-Slavit, 2014, p.192). Teacher concentrates on teaching the language function taught in her lesson.

   B.1.1. Teacher identifies the language function taught in the lesson: Teacher provides her definition of the language function to be taught.
   B.1.2. Teacher explicitly teaches the language function taught in the lesson: Teacher teaches the concept of specific language functions taught in her lesson (i.e. teacher teaches students how to describe, how to make an inference, how to identify cause and effect). Teacher addresses specific language functions taught in the lesson.

   B.1.3. Teacher makes connections between language functions: certain linguistic functions are taught in clusters.
   B.1.4. Teacher identifies the language demands students should be able to master given the unit: As far as language goes, what is the teacher asking students to know and to be able to show given the content taught. The language students need to have to be able to do the work the teacher is asking them to do.

   B.2. Teacher writes language objectives in her lesson plan and or when she is teaching. Teacher selects the language function and the sentence frames that go along with the function. Language objectives: Specified, observable language outcomes designed for individual lessons and often differentiated by students’ level of language proficiency (Gottlieb & Ernest-Slavit, 2014, p.192).

   B.2.1. Teacher creates and writes the sentence frames linked to the language objectives she is implementing for that specific lesson plan. Teacher writes sentence frames as she implements and/or creates her lesson plan and when she identifies the need for it.
B.2.2. Teacher discusses the role of implementing language objectives (B.2.3) in her instruction: Teacher discusses how planning for language instruction has influenced how she writes her lesson plans.

B.2.2.1. (B.2.3.1) Teacher views the role of language objectives differently in English as she does in Spanish. Teacher mentions that English speaking students tend to use more sentence frames than their Spanish counterparts during class time.

B.3. Teacher teaches academic vocabulary. Teacher identifies language focus of lesson as academic vocabulary. **Academic vocabulary** refers to content-specific words teacher has identified as words students need to learn for any given lesson plan. Teacher uses a combination of words selected in the text and words she feels students need to know. In addition, she asks students to select words they don’t know.

B.3.2. Cognates and/or false friends.
B.3.3. Synonyms and antonyms
B.3.4. Multiple meaning words.
B.3.5. Context clues.
B.3.6. Teacher uses graphic organizers (i.e. foldables and frayer model) to teach vocabulary.

B.4. Teacher explicitly integrates language and content.

C. **TEACHER IDENTIFIES THE TOPIC OF HER INSTRUCTION**

*This codes provides context for the lesson*

C.1. Teacher discusses her content instructional topic and objectives for the unit.

C.2. Teacher discusses the concepts taught in the lesson: Teacher discusses her own content pedagogical understanding of the concepts taught in the lesson. This code is all about her own understanding of these concepts.

D. **ITEMS TEACHER IDENTIFIES AS LIMITATION/CONSTRAINS.**

D.1. Teacher points out that she needs further pedagogical language knowledge support.

D.1.1. Teacher mentions how difficult it is to plan for language when working on her lesson plan, especially Spanish.

D.1.2. Teachers points out she finds it difficult to balance Spanish language instruction and English language instruction. Teacher mentions that in Spanish, the instruction tends to be less cognitively demanding since students are not completely fluent in Spanish.

D.2. Teacher expresses she has limited understanding of concepts to be taught in the lesson.

D.2.1 Teacher points that she needs further pedagogical content knowledge support.

D.3. District-mandates teacher has to abide by

D.3.1. Academic language instruction needs to fit into gradual release model.

D.3.2. High-stake standardize testing guides her instruction: teaching to the test.
D.3.3. Lack of instructional resources in Spanish: there is no curriculum guide for DL
  
D.3.3.1 Lack of books and materials in Spanish.
LIST OF REFERENCES


Katherine Alva has a Ph.D. in the area of ESL/Bilingual Education. She was a McKnight Doctoral Fellow in the School of Teaching and Learning at the University of Florida where she was an instructor in the area of ESL/Bilingual education. She has presented at state, national, as well as, international conferences. She has not only worked as a bilingual research assistant at a Dual Language program in FL, but she has also collaborated implementing and designing professional development for Dual Language teachers. Currently, she is working as the Dual Language Specialist for DCPS in Jacksonville, FL.