Student Oral Proficiency in Grade Three Spanish Immersion: Linguistic Diversity,

Student Interaction and Differentiated Scaffolding

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Dedication

To all students, teachers, administrators and researchers working to unite communities and build bridges through extending the joys and benefits of multilingualism and multiculturalism around the world.

Abstract

Spanish immersion programs in the U.S. increasingly work with both English and Spanish home language students (EHL/SHL) who bring a wide variety of linguistic resources and Spanish oral proficiency levels. One important approach to adapting to this linguistic diversity in immersion schools may be to differentiate support for student language development during content instruction. This paper explores a collaborative design-based study on the efficacy of instructional practices that afford increased student oral proficiency development through language-focused differentiated instruction.

The school site was a grade-three classroom in an urban two-way Spanish immersion school that included students from a variety of home language backgrounds. Students from one classroom (n=24) were assessed for oral proficiency using the Student Oral Proficiency Assessment (SOPA) from the Center for Applied Linguistics (CAL). Focal student language production was evaluated with attention to complexity measures at the beginning of and end of the semester-long study. Focal student interactional discourse was also examined during the "improvement on local practice." Teacher and student interviews were analyzed in relation to linguistic diversity and differentiation using constructs from interactional sociolinguistics including authentication, intertextuality and adequation/distinction.

Findings suggest that 1) students increased their language complexity as measured by number of different words, mean length of utterance, and subordination. However SHL students' language complexity changed to a lesser extent than EHL students'. 2) Students appeared to increase their participation in relation to their engagement with the target language structures, their exposure to increasingly complex language, and their developing awareness of both how language works and how to increase academic language use. 3) The classroom teacher's perception of linguistic diversity shifted to become less focused on "native speakers." His conceptualization of "attention to language" changed from a focus on form to an exploration of functional options to facilitate student interaction. Additionally, teacher-identified "socially sanctioned niches" became safe spaces for students to engage with language play that reinforced their developing bilingual identities.

Studies promoting students' academic language development often describe the

structures that linguistically diverse students should be encouraged to produce in order to participate in rigorous learning experiences. However, it is important to remember that students are negotiating their relationships at the same time that they are making sense of content. Therefore, design and implementation of language-focused differentiated instruction is likely to promote linguistic development to the extent that it can afford (or constrain) the local emergence of bilingual identities in connection with increased language awareness, exposure to a wider variety of complex shared texts from which to draw, and access to increased participation within academic learning experiences.

Table of Contents

List of Tables

List of Figures

CHAPTER 1: INTRODUCTION

Background and Rationale

Language immersion programs have been shown to be effective in developing student proficiency in two or more languages for language majority students in one-way programs (Christian & Genesee, 2001; Genesee, 1987; Genesee & Jared, 2008; Genesee & Lindholm-Leary, 2013; Johnson & Swain, 1997; Swain & Lapkin, 1982; Thomas, Collier & Collier, 2010) and both language majority and minority students in two-way programs (Lindholm-Leary, 2001; Collier & Thomas, 2004). One-way immersion programs traditionally serve language majority students who primarily come from the same home language background (e.g., English) and learn academic content for at least 50% of subject area instruction (e.g., Spanish, French or Chinese). Two-way immersion (TWI) programs serve language majority and language minority students who learn academic content for at least 50% of subject area instruction in the minority (partner) language. Both immersion models aim to develop proficiency in the students' home language and the additional language (Christian, 2011; Howard, Sugarman, & Christian, 2003).

Linguistic Diversity in Immersion Programs

Many TWI classrooms consist of both Spanish home language (SHL) and English home language (EHL) students with a variety of oral language proficiencies. As students grow in their bilingual skills, they develop distinct linguistic strengths and learning needs. Like other emergent bilinguals, immersion students move through school with a complex range of 'linguistic repertoires' and make linguistic choices based on the resources available to them in order to meet both their learning and interactional goals (Rymes, 2009). It has been suggested, for example, that SHL students at a variety of proficiency levels need specific instructional support for their Spanish language development (Lynch, 2003; Potowski, Jegerski, & Morgan-Short, 2009; Tedick & Young, 2014; Valdés, 1996), which might be different from the language supports needed for EHL students acquiring a second language (Anberg-Espinosa, 2008; Palmer, 2007; Wiese, 2004). TWI teachers, therefore, must consider a number of pedagogical implications when attempting to promote attention to language for the wide range of student linguistic proficiencies and repertoires in the immersion classroom. While all immersion teachers tend to manage to

work with the diversity of first (L1) and second language (L2) proficiencies as well as student academic abilities (Cammarata & Tedick, 2012; de Jong, 2004; Walker & Tedick, 2000), TWI teachers have an even more challenging job due to the diversity of language backgrounds and proficiency levels. Targeting only one language objective per lesson, for example, will not promote language learning for all students in linguistically diverse classrooms. The difficulty for TWI teachers, given their linguistically heterogeneous student groups, is to integrate explicit attention to language that is appropriate for EHL students for developing their L2 proficiency while at the same time continuing to facilitate SHL speakers L1-like language development (see Lindholm-Leary, 2001, for an overview). Researchers such as Montrul (2012) advocate investigating the types of instruction that would be beneficial to all types of learners in classrooms that include both SHL and EHL students. Few studies, however, have described how teachers differentiate instruction to promote attention to language in classrooms that consist of both SHL and EHL learners at very different proficiency levels. No studies have explored the specific impact on learner language of such differentiation.

One-way immersion programs in many contexts are also experiencing an increasing range of linguistic diversity among their students (Dorner & Layton, 2014; Fortune, 2001; Muntean, 2011; Swain & Lapkin, 2005). Spanish one-way immersion schools in urban environments, for example, are increasingly finding that both their EHL and SHL students have a wide range of English and Spanish language varieties and proficiency levels at all grade levels (Dorner & Layton, 2014; Fortune, 2001; Muntean, 2011). To promote equity in educational opportunities for students, it is important to understand this diversity and explore how to best adapt to demographic and proficiency differences instead of targeting language instruction to the average proficiency level in each classroom. Johnson and Swain (1997) have documented how immersion programs have grown and adapted to a variety of contexts around the globe, and Swain and Lapkin (2005) have outlined shifts in the Canadian context that have "called into question the notion of a monolithic culture in the school community" (p. 169). Similar adaptations must continue to occur in the U.S. as immersion programs experience growing linguistic diversity in their classrooms and schools.

Home language influences on oral language development. Language-focused differentiated instruction is especially important for the linguistic development of the minority language (e.g. Spanish) in a Spanish/English immersion programs in the U.S. Students will have access to the majority language (English) outside of the classroom. However, many EHL students rarely have access to Spanish outside of school and this frequently results in limited input in Spanish, especially with language that could be considered social in nature. While there is an overlap between social and academic language, SHL students, in contrast, often have extensive social language resources to draw upon but may benefit from a focus on their academic Spanish skills, especially related to reading and writing outside (Montrul & Potowski, 2007; Potowski, 2007a). SHL students may also experience shifts (incomplete acquisition or attrition) in their home language development and increasingly prevalent English dominance unless there is a specific effort made to support Spanish language development (Montrul & Potowski, 2007; Potowski, 2007a; Tedick & Young, 2014).

Researchers looking at oral language acquisition and linguistic proficiency have documented potential differences between EHL and SHL students' language development. EHL students in traditional one-way immersion programs, for example, often begin with similar stages of language acquisition and have limited connections to native speakers of the immersion language and their communities (Cloud, Genesee, & Hamayan, 2000). However, even with homogeneous groups of students, the range of EHL students' Spanish proficiency levels typically widens as students advance through grade levels (Walker & Tedick, 2000) as they do in TWI programs (Lindholm-Leary & Howard, 2008). Many EHL students use communication strategies to talk around unknown words or constructions to get their message across with a limited degree of linguistic complexity (Bild & Swain, 1989). Potowski (2007a) has shown that by 8th grade, some EHL students in a TWI program never produced particular forms, such as the conditional or subjunctive moods. Additionally, EHL students may not be homogeneous in terms of home language backgrounds. EHL students in different immersion contexts increasingly bring with them non-standard English dialects that may lead to potential cultural and linguistic differences that can affect student learning due to

a mismatch with classroom language expectations (Anberg-Espinosa, 2008; Freeman, Freeman & Mercuri, 2005; Wiese, 2004).

SHL students often have access to the minority language outside of school, however their Spanish proficiency levels also vary. While many SHL students grow up in homes in which Spanish is spoken, some students have only receptive (or limited productive) competence in Spanish (Mikulski, 2006; Mikulski & Elola, 2013; Valdés, 1997b). Other SHL students may not have any Spanish language proficiency and little or no affiliation with their heritage language (Klee, 2011). SHL students, therefore, can be expected to have a range of Spanish linguistic abilities and proficiency levels despite having all been born into a non-English home language environment (Carreira, 2007; Montrul & Potowski, 2007; Potowski, 2007a, 2007b). SHL students in one-way and two-way immersion programs may be particularly affected by incomplete acquisition of Spanish which occurs when SHL students transition to English dominance prior to the acquisition of some forms (oral and written) that normally develop after the ages of 4 or 5 in monolingual Spanish speakers (Montrul, 2005). Incomplete acquisition is affected by decreased input in Spanish, increased value placed on English acquisition, and lack of input consisting of formal registers and complex academic language forms often encountered in educational environments.

Montrul and Potowski (2007) studied the degree that students in a Chicago TWI school experienced incomplete acquisition (as determined by an early exposure to English) in grammatical gender. Because no decline in accuracy was found as SHL students progressed through school, as is normally found in non-immersion schools (Anderson, 1999), researchers concluded that TWI programs were supportive of language maintenance. However, the increase in acquisition with age was not sufficient for them to conclude that this TWI program was *promoting* language acquisition for SHL children. Instead they indicated it was *preventing* language loss.

While SHL students in TWI programs have been reported to achieve "balanced bilingualism" in English and Spanish as early as Grade 5 (Howard, Christian & Genesee, 2004), they tend to become more dominant in English over time and develop non-native-like aspects in their Spanish (Potowski, 2007a, 2007b). One oral proficiency evaluation project (Fortune & Arrabo, 2008) showed EHL students outperforming SHL students in

Spanish in the district's immersion programs by Grade 8. If students' Spanish language development is weak, they may be challenged by content instruction in Spanish in the higher grades (Tedick & Young, 2014; Walker & Tedick, 2000). Additionally, their identity as learners could be compromised if students do not consider themselves to be fluent in Spanish despite coming from a bilingual home or community (Bartlett, 2007) or despite having spent a number of years in an immersion program (Martin-Beltrán, 2010).

SHL and EHL students with greater Spanish proficiency will need to be pushed in their language proficiency as well so that that their academic language does not plateau, but instead continues to develop to meet future academic and professional language needs. It is a challenge for teachers to facilitate the development of bilingualism in classrooms that include EHL and SHL students with a variety of linguistic backgrounds and language proficiencies. Due to these documented differences in student language acquisition related to home language and culture, it is important to identify how educators might differentiate instruction that promotes attention to language for all students. SHL students in particular, with higher rates of proficiency in their home language, have been shown to be more successful academically as they progress through school (Kaptain, 2010; Lindholm-Leary & Howard, 2008). Yet no studies have specifically looked at the implications of implementing differentiated supports for attention to language during content instruction in an immersion context.

Importance of oral language proficiency development. At the same time that one way and two-way immersion schools are working to provide quality instruction for linguistically diverse students, there is also a growing awareness in education studies that language learners need explicit attention to language development during content instruction (Lyster, 2004; Spada, 2011). Researchers in a variety of linguistic disciplines are now working to develop an understanding of how to bring explicit attention to language in the context of meaningful academic content instruction (Schleppegrell, 2013). For this reason, there is a need for research regarding the types of instructional strategies that best integrate language-focused differentiated instruction during content instruction for a range of linguistically diverse learners.

Oral language proficiency has been connected to overall academic achievement for all students, but especially for students in the process of acquiring a new language in

school (Genesee, Lindholm-Leary, Saunders, & Christian, 2005). "Learners need opportunities for interaction in meaningful contexts supported by explicit attention to language" (Schleppegrell, 2013, p. 154). Children may not develop the oral language skills needed to be successful in school contexts (Schleppegrell & O'Hallaron, 2011) unless teachers provide explicit instruction directed towards oral language development. Spanish oral language development in immersion programs is essential for all learners because, among other reasons, cognitive and linguistic demands increase as students advance (e.g., Schleppegrell, Achugar & Orteíza, 2004). There is a strong correlation between home language (L1) oral language development and learning to read in the L1 (Shanahan & Lonigan, 2010) and in the new language (L2) (Erdos, Genesee, Savage & Haigh, 2010), as well as a connection between higher L2 oral language proficiency and higher L2 reading comprehension (August & Shanahan, 2006; Melby-Lervåg & Lervåg, 2011).

   Peer interaction during small group work. When researchers look at process factors that facilitate oral language production for all students, they often identify small group work as the best platform to promote oral language production. Simply increasing frequency of "on task" student talk and participation during small group work, for example, has been shown to facilitate learning for individual students (Cohen, 1994; Webb, 2009). Additionally, the *quality* of language production during small group work has also been shown to increase language acquisition and academic learning (Cohen & Lotan, 1995). Research conducted with groups of young L2 learners has also shown that increased student interaction leads to increased oral proficiency (Swain, Brooks, & Tocalli-Beller, 2002). Genesee (2004) has asserted that, "...it appears that [L2] acquisition is enhanced when students are given extended opportunities to use the language interactively" (p. 27). Overall, students who use language more with peers tend to develop greater proficiency in the new language (Chesterfield, Chesterfield, Hayes-Latimer, & Chavez, 1983; Saville-Troike, 1984). However, interaction must be carefully planned for it to be effective for language learning (August, 1987; Peck, 1987; Storch, 2001).

   Increased language use in general has been associated with greater language acquisition in immersion programs (Swain & Lapkin, 1995; 2002). Swain (2000) has

proposed that increased language production through interaction may be key to increasing immersion students' minority language proficiency. Differentiated pedagogy should, therefore, be designed to promote increased student language production during interactional opportunities and thereby create affordances for increased language proficiency for all students.

Teacher-centered classrooms where students produce little language are not ideal environments for developing language proficiency (Foster, 1998), and this is particularly true in immersion programs that aim to promote high levels of bilingualism and biliteracy (Howard, Sugarman & Christian, 2003; Lapkin & Swain, 2000; Sugarman, 2012). Students in immersion programs have greater opportunity to produce language and develop minority language proficiency through negotiation of meaning and feedback during small group work (Fortune, 2001; Lapkin & Swain, 2000; Sugarman, 2012). Therefore, a critical design feature of the study will be exploring student interaction during small group work.

Differentiated Instruction and Language Learning

Differentiation is a pedagogical construct that prioritizes tailoring instruction to individual student needs in mixed ability classrooms. Differentiation has been defined as "making sure that the right students get the right learning tasks at the right time" (Earl, 2003, pp. 86-87). Tomlinson (1999, 2003a, 2004a), who has become the most recognized researcher and writer connected to the concept of differentiation, defines her version of differentiation as, "modification of teaching and learning routines to address a broad range of learners' readiness levels, interests, and modes of learning" (Tomlinson, 2003a, p. 121).

Tomlinson and Imbeau (2010) assert that, "each student should have equity of access to excellent learning opportunities" (p. 34), which, when applied to dual language immersion contexts, may expand beyond the current conceptualization of differentiation as defined by Tomlinson. Differentiation presents teaching and learning goals as emerging from student needs, not from abstract targets related to generalized leveled groups. Tomlinson's framework (Tomlinson, 1995, 1999) includes four curricular elements (content, product, process, affect) and three student characteristics (student

readiness, student interests, student learning profiles) for teachers to consider when planning differentiated instruction (See Figure 1.1).
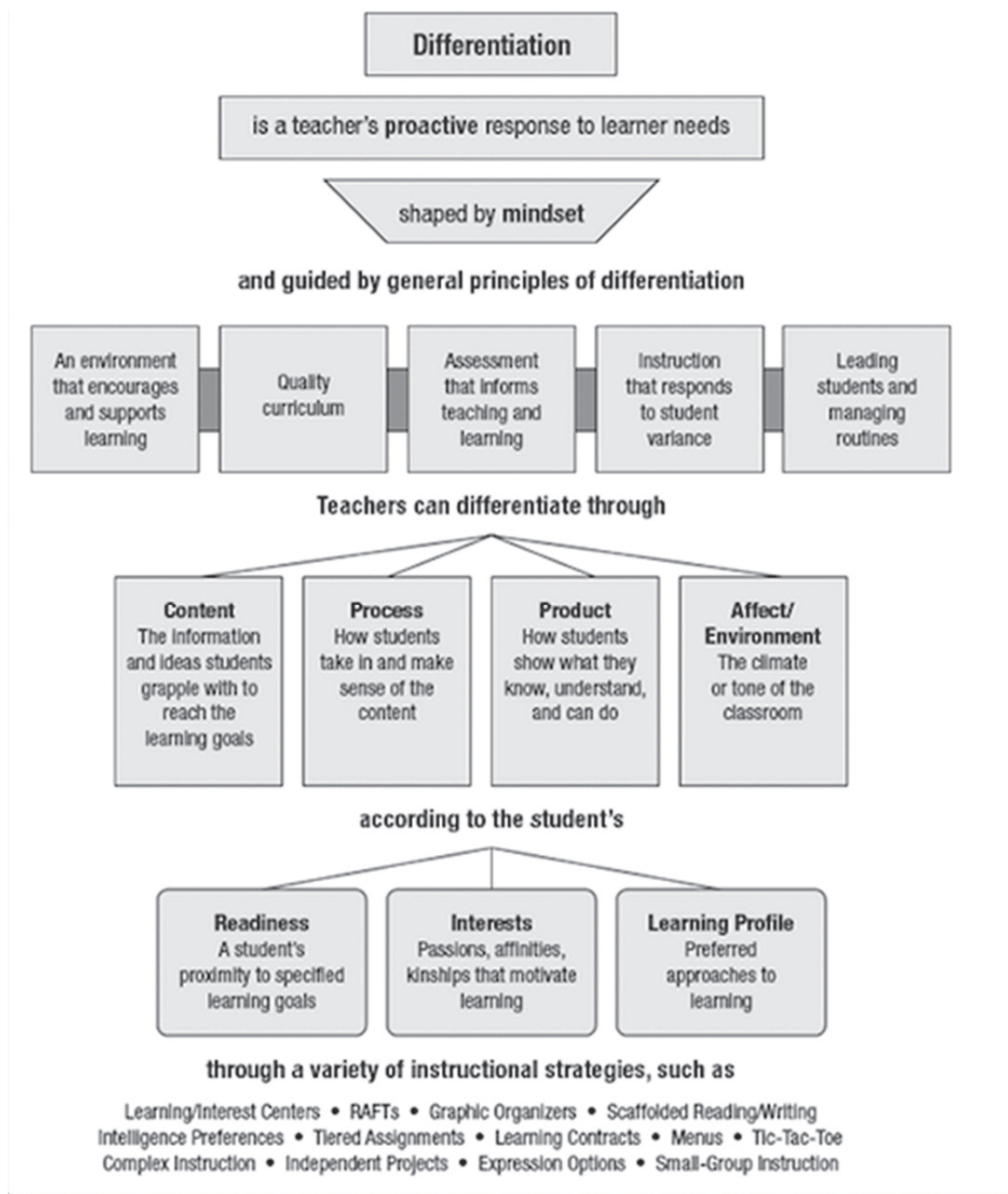
Figure 1.1 Differentiated instruction model (Tomlinson, 2014)

Tomlinson clarified that, "teachers may differentiate (content, process, product, [affect]) according to student (readiness, interest, learning profile)" (Tomlinson & Allen,

2000, p. 3). However, traditional differentiation, often focused on inclusion of special needs and gifted students in the mainstream classroom, does not address issues related to linguistic diversity.

Teacher implementation of differentiation. Not only is there a dearth of original research integrating differentiation and linguistic diversity, there is a plethora of research showing that teachers often do not implement any differentiation strategies at all in their classrooms (Blozowich, 2001; Brimijoin, 2001; Callahan, Tomlinson, Moon, Brighton, Hertberg, 2003; Moon, Tomlinson, & Callahan, 1995; Tomlinson, 2001; Robinson, 2010; Schumm & Vaughn, 1991). Researchers continually find that teachers do not differentiate their instruction, even with students who are working to develop language proficiency (Tomlinson et al., 2003; Fletcher, Bos, & Johnson, 1999; Reis et al., 1997). Moon et al. (1995) distributed a survey to 500 administrators and 449 middle school teachers across the country and found that 50% of the respondents claimed that they did not need to differentiate for their students. Other researchers using similar large-scale survey methods have found results supporting the claim that teachers do not adapt instruction to individual student needs (Callahan et al., 2003; Schumm & Vaughn, 1992; Tomlinson, 1995). A majority of teachers report not adapting instructional practices, resources, planning, or assessments and tend to differentiate 'reactively' (McIntosh, Vaughn, Schumm, Haager, & Lee, 1993).

Differentiated language supports. Fairbairn and Jones-Vo (2010) have created a practitioner-friendly guide for teachers working with English learners at different proficiency levels. While Fairbairn and Jones-Vo (2010) do provide frameworks for differentiating language objectives, they do not provide original research or classroom management strategies for how to work with a wide range of linguistically diverse students situated in a content-focused classroom.

It appears that most differentiation literature does not provide explicit guidance for how to include differentiation for L1 or L2 learning. Additionally, resources (such as WIDA) that do outline guidelines for linguistic differentiation create broad guidelines for how to write differentiated language objectives, but do not clearly address how to implement these recommendations in an actual content-focused lesson in order to promote language learning and facilitate sense-making. Additionally, research shows that

teachers do not tend to differentiate despite knowledge and interest in doing so. Therefore, there is clearly a need for a classroom-based research study that investigates how immersion teachers and students respond to the implementation of new differentiated language supports that promote attention to language for linguistically diverse students during content instruction.

Significance of the Problem

This study reports on design-based research in a Spanish/English third grade immersion classroom with linguistically diverse immersion learners, where the classroom teacher was supported in using linguistic scaffolds to promote language-focused differentiated instruction with a focus on functional complexity. The present study explores teacher and student responses to instructional modifications and examines the efficacy of specific differentiated practices that potentially afford a shift in student interaction as a means to expanding language complexity. This study adds to the field of immersion education by (a) identifying current practices and challenges regarding how teachers can most effectively make use of *linguistically* differentiated instruction for *linguistically* diverse immersion students, (b) developing and describing linguistically differentiated instructional practices designed to assist student learners in increasing the functional complexity of their minority language use during small group interaction, (c) providing a systematic description of focal student responses to differentiated instruction, and (d) providing information regarding the complicated nature of negotiated changes to teacher-provided scaffolds that target differentiated language development in immersion programs.

Research Questions

The study aims to answer the following questions in regards to language-focused differentiated instruction:

1. How does the quantity and quality of individual immersion students' Spanish oral language production change in response to linguistically differentiated instruction? (RQ1)

2. How do students having different home language backgrounds and Spanish language proficiency levels respond linguistically and relationally to differentiation strategies? (RQ2)

3. How does an immersion teacher's characterization of linguistic diversity and differentiation change during a period of intensive reflective work related to models of differentiation? How is this change reflected in practice? (RQ3)

Theoretical Framework

This study explores the effects of particular classroom-based interactional practices on language development. Due to the importance of interactional context-bound discourse to this study, interactional sociolinguistics (Gumperz, 1982) is an appropriate primary overarching framework. Interactional sociolinguistics is an approach that connects discourse, "language in use" (Rymes, 2009, p. 6), and particular interaction patterns to learning outcomes. A secondary theoretical framework, Systemic Functional Linguistics (SFL) will be used to address portions of the research questions and will be described below as well.

Interactional Sociolinguistics

Interactional sociolinguistics is an interpretive framework (Bailey, 2008) that locates both cognitive and social structures in interaction and sees classroom talk as a mediational tool for learning. According to Mehan (1998), interactional sociolinguistics combines existing assumptions about social dynamics (from sociology) and cognitive processes (from psychology) and locates them in interactional contexts. In describing interactional sociolinguistics, he explained that,

> The 'social facts' that sociologists traditionally have treated as objective and autonomous (such as identities and educational careers), and cognitive processes that psychologists have treated as subjective and individual (such as intelligence, learning and thinking) were recast as collaboratively constructed and continuously embedded in face-to-face interaction in social environments" (p. 254).

From an interactional sociolinguistic perspective, learning occurs when teachers and students enact 'sense-making' practices through interaction. Bilingualism, for example, from an IS perspective is seen as a social practice rooted in choices that participants make during interaction (Heller, 2007). Interactional sociolinguistics connects communicative functions to how speakers collaboratively create meaning and make sense through social interaction. This framework emphasizes that "sociocultural and linguistic knowledge are systematically linked in the communication of meaning"

and are "embedded within the talk and behavior of interaction itself" (Bailey, 2008, p. 2314).

My study looks at how student (and teacher) language practices shift in response to language-focused differentiated instruction. The data analysis is concerned primarily with examining discourse choices made when participants enact particular language functions (explaining, encouraging, etc.) during interaction. Similar to my study, many classroom-based interactional sociolinguistic studies aim "to provide empirical evidence of how involvement in talk affects educational outcomes" (Mercer, 2010) since interactional sociolinguistics conceptualizes learning as occurring through the development of individual linguistic repertoires that are negotiated in situationally- and socially-developed moment-by-moment interactions between students and teachers or students and their peers.

Legitimation. The interactional discourse data from teacher interviews will be analyzed through the theoretical concept of 'legitimation' (Bucholtz & Hall, 2005; van Leeuwen, 2007). Legitimation theory assumes that speakers use a number of different tools in order to justify, "Why should we do this?" and, "Why should we do this in this way?" (van Leeuwen, 2007, p. 93). This sociolinguistic tool will be used to interpret ways that the classroom teacher and researcher, through their interactions, justified their instructional decision-making and made sense of the student responses throughout the study. The four key aspects of van Leeuwen's concept of legitimation considered are: authorization—legitimation by reference to tradition, custom or law; moral evaluation—legitimation by reference to value systems; rationalization—legitimation by reference to the goals and uses of institutionalized social action; and mythopoesis—legitimation through narratives whose outcomes include rewards and punishments. This is an appropriate framework for interpreting the teacher-researcher interactions since the shift in perspectives from both participants is affected by the desire to legitimize their practice related to language-focused differentiated instruction during content instruction. Fitts (2006) justified applying the construct of legitimation to her study done in a TWI school since "authorization and illegitimation denote institutional or ideological support for, or opposition to, a particular linguistic practice" (p. 603).

Systemic Functional Linguistics

While this study is not strictly a SFL-focused work, it can benefit from SFL theory in that it aims to describe, "how people use language to make meanings with each other as they carry out the activities of their social lives" (Christie & Unsworth, 2000, p. 3). In particular, language is seen as a negotiation of meaning communicated through functional tools that gain their meaning at three different levels: ideational, interpersonal and textual. An analysis of these three always-active 'metafunctions' (Llinares, Mortimer, & Whittaker, 2012) shows how "social activities such as education shape language use and how language itself constructs knowledge" (p. 10). Ideational functions allow us to make sense of our experiences, interpersonal functions allow us to enact social relationships, and textual functions facilitate the construction of textual (oral and written) discourse that allows us to facilitate the other two metafunctions (Halliday & Matthiessen, 2004, p. 29-30). Classroom-based studies investigating student interaction related to learning have used functional analysis as a way to identify patterns in student language use tied to meaning-making (Gibbons, 2006; Kumpulainen & Muntean, 1999; Schleppelgrell, 2013). SFL will assist the analysis of student responses to differentiated instructional modifications during small group work.

Additionally, measurement of syntactic complexity will be analyzed using theories from SFL that conceptualize language as moving from coordination to subordination to grammatical metaphor as proficiency increases (Halliday & Matthiessen, 1999). According to Norris and Ortega (2009),

> This theory of language posits that development proceeds from: (i) the expression of ideas first by means of mostly parataxis (i.e., coordination) or the sequencing of self-standing words, sentences, and clauses; through (ii) an expansion by which hypotaxis (i.e., subordination) is added as a resource to express the logical connection of ideas via grammatically intricate texts; to finally (iii) the emergence of and reliance on grammatical metaphor (p. 562)

Student language samples will be analyzed to determine shifting use of coordination, subordination and, to some extent, grammatical metaphor in order to explore changes in language use that may have occurred during the study.

Overview of the Study

In Chapter 1, I have outlined the need for a study that examines how language-focused differentiated instruction is enacted in immersion classrooms. This study aims to identify strategies that could realistically be implemented in an immersion context to promote oral language proficiency development for a wide range of students. As such, this study fills a void in the literature because it focuses on how practitioners can create affordances for students to draw on their language resources while simultaneously expanding their linguistic repertoires.

In Chapter 2, I explore relevant literature related to what we currently know about differentiation in linguistically diverse classrooms. I include existing literature related to the oral language proficiency development of SHL and EHL students in immersion classrooms. I also define the literature exploring the importance of peer interaction to oral language development. Additionally, I review the research that discusses the importance of complexity development and a focus on function with an aim to expanding what students can do with language. I then review the way that classroom-based interactional sociolinguistic studies have explored similar questions. I also review literature related to how studies have used a functional analysis to analyze learner language in linguistically diverse classrooms. Finally, I describe sociolinguistic studies looking at teacher discourse patterns that provide interpretations of shifts in instructional practice.

In Chapter 3, I outline the three stages of design-based research (DBR), which has been chosen as the methodology for this study: informed exploration, enactment of improvement on local practice, and evaluation. I then describe the research setting and participants, including the strategies for choosing the focal students. , I explain the language-focused differentiated instructional design including "the conjecture map" (Sandoval, 2014) which outlines the (a) conjecture, (b) embodiment, (c) mediating processes, and (d) expected outcomes. I describe the data collection procedures pre-study and for each phase of the DBR process. Finally, I provide an explanation of the data analysis techniques used analyze all of the data collected: (a) quantitative complexity analysis to examine shifts in learner language for focal student in initial and final SOPA assessments, (b) functional analysis used for the student language samples that documented students' responses before and during implementation of the instructional

design, and (c) discourse analysis (legitimation) used to examine teacher-researcher interactions throughout the process.

Chapters 4, 5 and 6 present evidence of how differentiated language supports affected language use patterns and discourse structures for each of the three research questions. In Chapter 4, I present data to answer RQ1, based on complexity analysis using Systemic Analysis of Language Transcripts (SALT) (Miller, Andriacchi, & Nockerts, 2011) to compare focal students' language use initial and final language used during a Student Oral Proficiency Assessment (SOPA) (CAL, 2009). In Chapter 5, I analyze data to answer RQ2 using functional analysis to identify patterns in students' linguistic structures that simultaneously met their interpersonal and ideational communication objectives (Gibbons, 2006; Halliday, 1993; Llinares, Mortimer, & Whittaker, 2012; Schleppegrell, 2013). Examples from classroom research exemplify how differentiated language supports promoted or constrained situated and contextual language learning while also supporting disciplinary goals and activities in immersion school content areas such as math and reading. In Chapter 6, I use the sociolinguistic construct of 'legitimation' (van Leeuwen, 2007; Bucholtz & Hall, 2005) to answer research RQ3. Interactional transcription data is analyzed from the teacher/research collaborative sessions. These interactions were related to our characterizations of the need for language-focused differentiated instruction and justifications of instructional decisions.

In Chapter 7, I synthesize the findings from data analysis and identify major themes. I examine the ways that focal student responses to a differentiated focus on function may have affected oral language complexity and students' investment in the learning process. Additionally, I review the findings related to teacher and researcher reflections throughout the process. Finally, I connect key findings to what is already known about language-focused differentiated instruction for linguistically diverse learners in immersion classrooms. The chapter includes implications for immersion teachers wanting to promote differentiated attention to language and focus on function in the classroom. Recommendations for future research are also provided.

CHAPTER 2: REVIEW OF THE LITERATURE

This study explores language-focused differentiated instruction in a linguistically diverse immersion classroom. Studies reviewed in this section provide a foundation for data collection and analysis in three key areas. The literature review includes theoretical pieces and empirical studies related to: (a) differentiated instruction meant to increase learning and expand students' linguistic repertoires, (b) syntactic complexity of oral language, and (c), functional analysis of learner language.

Teacher Implemented Differentiated Instruction

Differentiated instruction is a pedagogical construct that prioritizes tailoring instruction to individual student needs in mixed ability classrooms. Within a DI framework, teachers are encouraged to adjust curriculum, instruction, resources, and scaffolded supports in order to increase access to educational achievement for all students (Darling-Hammond & Bransford, 2007; Ducette, Sewell, & Shapiro, 1996; Gamoran & Weinstein, 1995). Differentiation has been defined as "making sure that the right students get the right learning tasks at the right time" (Earl, 2003, pp. 86-87).

Tomlinson's Differentiation Model

Tomlinson (1995, 1999, 2000, 2001, 2003a, 2003b, 2004a, 2004b, 2005a, 2005b, 2010a, 2010b) has become the most recognized researcher and writer connected to the concept of differentiation for L1 classrooms. Tomlinson (2003a) defines her version of differentiation as, "modification of teaching and learning routines to address a broad range of learners' readiness levels, interests, and modes of learning" (p. 121). She asserts that, "each student should have equity of access to excellent learning opportunities" (2010, p. 34), however traditional differentiation, focused on inclusion of special needs and gifted students in the mainstream classroom, does not address issues related to facilitating additive bilingualism for language learners.

Some researchers have criticized the monopoly that Tomlinson and her colleagues have on 'differentiation' as a construct, asserting that the author tends to cite herself repeatedly and make broad generalizations based on limited original research (Stavroula, Leonidas, & Mary, 2011). Despite these criticisms, most discussions related to differentiation in the literature rely on the framework provided by Tomlinson and her co-authors. Their framework includes three curricular elements (content, product, process),

one socioemocional factor (affect), and three student characteristics (student readiness, student interests, student learning profiles) for teachers to consider (Tomlinson & Callahan, 1992; Tomlinson & Doubet, 2005; Tomlinson & Eidson, 2003; Tomlinson & Imbeau, 2010; Tomlinson & Kalbfeisch, 1998; Tomlinson & McTighe, 2006; Tomlinson & Moon, 2013; Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003; Tomlinson & Callahan, Lelli, 1997; Tomlinson & Imbeau, 2010). Tomlinson originally (2000) clarified that, "Teachers may differentiate (content, process, product) according to student (readiness, interest, learning profile)" (p. 3). Affect, however, may be a more complicated construct to fit into this paradigm.

Differentiation through content. Differentiating through content may include aligning tasks with differentiated instructional goals, adjusting the degree of disciplinary complexity and clarifying key concepts and generalizations for all students (Santamaria, 2009). Mastropieri, et al. (2006) did a quantitative analysis of the effects on student learning outcomes of a classroom peer-tutoring program using differentiated content for students in 8th grade science classes. Thirteen classes (213 students) participated in a 12-week unit (on the scientific method) in which certain groups received differentiated, peer-mediated, hands-on instruction related to the content. The authors found that the differentiated groups had students who performed better on posttests as compared to pretests and did better on high-stakes standardized tests than did the groups that did not participate in the differentiated activities. While the authors cited research suggesting that peer mediation increases academic engagement for all students (Fuchs, Fuchs, & Kazdan, 1999; Scruggs & Mastropieri, 1998), they concluded that it also appears to lead to increased academic achievement in science. A number of studies have recreated and expanded upon these findings in other subject areas, finding that differentiated content instruction leads to increased student learning and increased levels of satisfaction (Erickson, 2010; Hootstein, 1998; Simpkins, Mastropieri and Scruggs, 2009; Tobin, 2007; Walpole & McKenna, 2007). Although these studies lend support for the benefits of DI, each study defined and implemented DI in a different manner and none of these studies included aspects to support linguistically diverse learners.

Differentiation through process. Differentiation through process includes using flexible grouping, facilitating student interaction based on ability level, and maintaining a

balance between teacher-assigned and student-initiated activities (Santamaria, 2009). Brimijoin (2002, 2005) used case study analysis to describe the ways in which a particular teacher differentiated the learning process in order to increase student learning. Although the study looked at learning outcomes (and found benefits for differentiation), unlike previous studies she provided rich descriptions of the strategies the teachers used to differentiate for students. 'Katherine,' the teacher in the study, identified clear learning goals for the entire class and used pre-assessment and formative assessment to track their progress towards meeting the goals. She also outlined multiple paths to meet the learning goals including curriculum compacting (using assessment data to allow alternatives for students who have already mastered content), tiered lessons (activities for corresponding levels of mastery such as varied journal prompts), graphic organizers (such as the Venn diagram), RAFT activities (performance assessments that included differentiated roles, audiences, formats, and topics), and anchor activities with task cards (step-by-step instructions for completing a larger activity throughout the unit) to allow students multiple paths towards learning. According to Brimijoin (2005), at the end of 5th Grade, 74% of the students passed the reading assessment (as opposed to 47% in 3rd grade); 58% passed math (vs. 53% in 3rd grade); 58% passed social studies (vs. 34% in 3rd grade); and 74% (vs. 42% in 3rd grade) passed the science assessment. The teacher attributed the results to her observation that, "the facts stuck because they were scaffolded into existing information, taught at the students' readiness levels, hooked in with interests, and nailed down with instruction targeted to the students' strongest learning styles" (Brimijoin, 2002, p. 263). While it is not possible to conclude that this improvement was due to differentiated instruction, it does lend support for the potential that differentiated instruction can provide.

When researchers look at process factors that facilitate differentiation, they often identify grouping strategies, specifically flexible ability grouping and cooperative learning (Dahloff, 1971; Kulik, 1992; Lou, Abrami, Spence, Poulsen, Chambers, & d'Apollonia, 1996; Sharan & Sharan, 1992). Johnson and Johnson's meta-analyses (1989, 2005, 2009) illustrate how collaborative work environments (as opposed to competitive or individualistic) lead to greater student achievement, social support, self-esteem, time on task, attitudes toward tasks, quality of reasoning, and perspective taking. Cohen (1984,

1986, 1994) has also identified carefully structured group activities and preparation for group work as important for student achievement.

Cohen and Lotan (1995) argued against tracking and ability grouping due to the inequality associated with these practices. They advocated, instead, for differentiated instruction in heterogeneous classrooms. They studied two interventions using heterogeneous small groups interventions meant to counteract the process of stratification in classrooms. Applying 'expectation states theory' (Berger, Cohen & Zelditch, 1972), which argues that high-status actors often dominate group interactions even when the differences in status are irrelevant to the task, the authors studied thirteen classrooms (Grades 2-6) in three schools in the San Francisco Bay area. All classrooms had large proportions of students from language minority and low-income backgrounds. The teachers were prepared in how to differentiate feedback and evaluations for 'low status' students. They assigned students to small mixed gender groups designed to have different levels of achievement as well as mixed proficiencies in English. The teachers were instructed in strategies for the 'treatment of status'; they watched for instances of low-status students performing well on skills that were relevant to classroom tasks and then provided the students with specific, favorable, *public* evaluations so that high status students would hear the teacher's evaluation. Trained observers gathered information on teaching behaviors during instruction (a total of 285 observations, ten minutes each, for at least 17 times per teacher). They found that use of status treatments were associated with higher rates of participation for low-status students. Since earlier work had found that increased participation led to increased academic achievement (Cohen, 1984; Webb, 1982), the authors concluded that, "access to interaction is critically important to [low status and low-achieving students'] achievement" (Cohen & Lotan, 1995, p. 114). The authors emphasized the importance of their findings given the fact that the elimination of tracking and ability grouping has led to "severe problems of status differences within classrooms" (p. 115), problems that cooperative learning techniques alone do not solve.

Differentiation through products. Differentiating through products includes initial and ongoing assessments of student readiness and goals, clear expectations for final products with a variety of options for showing proficiency, and using assessment as a teaching tool (Santamaria, 2009). Studies that look at the effects of differentiation on

student learning struggle to separate which differentiation strategies are aimed at content, process, or product. Product is especially difficult to isolate, because teachers who are implementing differentiated products, also tend to differentiate for content and process (Santamaria, 2009).

A number of studies have attempted to look at overall student academic achievement in classrooms where differentiation occurs including differentiated products and final assessments. Tieso (2002) identified the effects of differentiation using assessments of students' prior knowledge, process strategies and final products to show understanding. Using a pre- and post-test model, the author worked with 31 teachers (645 students in Grades 4 and 5) in four school districts to implement five different versions of a three-week, eight-lesson unit including, for some groups, curricular differentiation and variations on grouping strategies and final products. The teachers taught using either 1) whole class *un*differentiated instruction, 2) the Joplin plan (switching classrooms for temporary differentiated lessons based on ability level), and 3) in-class flexible grouping to implement modified and differentiated instruction. Both the in-class flexible grouping and Joplin plan classrooms were shown to increase student achievement. The interviews and focus groups showed a preference among teachers and students for DI over whole class, undifferentiated instruction. The authors of this comprehensive study concluded that, "[W]hen curriculum enhancement is blended with flexible or temporary grouping for specific content or skills, achievement gains may be more substantial.

Differentiation and affect. The affective aspect of learning was referred to by Vygotsky as part of a dynamic system in which the "affective and intellectual unite" (2000, p. 10). Tomlinson (2010a) argued that while affect is not specifically a part of the curriculum, it influences how students interact with the curriculum and, therefore, should be considered when planning to differentiate. "Expert teachers don't just observe student behavior; they work to understand the affect that drives behavior so they can guide students in a positive direction" (Tomlinson, 2010a, p. 16). Affect is a student learning factor that has been extensively researched and may play an arguably larger role in student learning than content, process or product. Becker and Luthar (2002), for example, have identified the importance of socio-emotional factors in student academic achievement and assert (based on a review of the existing research) that there are four

critical socio-emotional factors to achievement: academic and school attachment, teacher support, peer values, and mental health. Tomlinson (2010a), too, has begun to assert that factors related to individual student social and emotional learning are equally as important as content, process and products.

Other researchers using a variety of methods have found that considerations of student affect appear to increase student learning overall and also increase teacher and student satisfaction with the educational process (Donen, 2012; Felder & Brent, 2005; Gamoran & Weinstein, 1995). Rosenholtz and Wilson (1980) looked at 'high resolution' and 'low resolution' classrooms (high resolution=low task differentiation, low student autonomy, and evaluations based on equal criteria for all students; low resolution=high task differentiation, high student autonomy, and evaluations based on differentiated criteria) in 15 fifth and sixth grade classrooms. They found that high resolution classrooms led to greater student awareness of students' reading abilities while in low resolution classrooms the individual reading abilities of each student were less apparent to other students. This finding would imply that flexible grouping can not only lead to increased academic achievement, but may also lead to fewer judgments about peers' abilities and students' own self perceptions of their own abilities. These self-perceptions and peer perceptions may influence student learning in and of themselves, even without the additional benefits of differentiated content, process and products.

Language acquisition research has also identified affect as a particularly important part of the learning process. Swain (2011) has reviewed student-learning data in a French immersion school and identified the emotional factors influencing learning. By identifying joy, frustration and exhilaration during the learning process, she argued that emotion is socially constructed and mediates learning. She concluded with, "...how important it is to consider the broader sociocultural-historical context in order to understand the power of an internalized emotional/cognitive unity in mediating current behavior in locally situated contexts" (p. 10).

Hamayan and Damico (1991) explored the role of emotion and bilingualism in their overarching analysis of the factors related to successful second language learning. According to the authors, it is important for all learners to develop a *feeling* of proficiency in both languages (which may be different from their actual proficiency as

measured by assessments of accuracy, complexity and fluency). They wrote, "...positive attitudes toward self, one's own native language group, and the target language group significantly enhance the attainment of proficiency in the second language" (p. 49).

Potowski (2012), looking particularly at SHL students, has argued for an expansion of the definition of who is a heritage language speaker. This broader definition would involve the concept of identity performativity (identity is constantly performed). She argued that language choice is part of that identity and therefore, "Language choice is never neutral; it is always imbued with ideology" (p. 181). Each learner develops a unique hybrid "dual language identity" that interacts with both the dominant and heritage culture and language. Val and Vinogradova (2010) have related that hybrid dual language identity to emotion both positive and negative. Some researchers have found (Bartlett, 2007; Martin Beltrán, 2010; Monzo & Rueda, 2009) in ethnographic studies that many SHL students, for example, with stigmatized language tend to speak in English (despite having less proficiency in English). Abdi (2011) looked at the identity construction of SHL speakers working with L2 learners in a Spanish foreign language classroom. In her microanalysis of classroom interaction, she focused on positioning theory and how "identities [are] produced and negotiated in social interaction" (p. 164). She identified instances that worked to create emotion in the learner that mediated learning or disrupted the learning process. She found that peers' perceptions affected SHL students' feelings of comfort leading to increased or decreased participation. In regards to one SHL student, she observed that, "Feeling that her own speaking abilities were inferior to those of her Spanish speaking classmates, friends and family members, Pat chose to remain silent" (p. 180).

Shenk (2007), working with one focal student (Bela) at the University of California-Santa Barbara, applied constructs related to identity and affect in her analysis of student speech excerpts in which Bela and her peers were enacting "authenticating moves" that supported or constrained their feelings of being truly Mexican. The student was recorded during academic and social interactions. Two conversations were analyzed in-depth, chosen due to their focus on ethnic identity and ideology related to the boundaries between stereotypical "Mexican" and "American" identities. The author found that the participants (three college-aged students) devoted a large portion of their

conversations to race and ethnicity, debating the speaker's "degree of Mexicanness" (p. 199). The interpretation and analysis showed that the discourse was continually connected to three identified ideologies: blood, birthplace and language fluency. While these ideologies could be recreating hegemonic and colonial constructs, the playfulness of the interactions led the author to conclude that they were actually resisting hegemonic practices and creating "safe spaces" for their nuanced, non-stereotypical ethnic and racial constructions.

Student characteristics and differentiation. Tomlinson (2010a) asserted that teachers are encouraged to reflect on the student variability in their classrooms in relation to three constructs regarding student need and variance: student readiness, student interest, and student profile. Tomlinson (2003, 2010) has conducted reviews of the literature to support her assertion that these three areas are key to understanding student variance in learning.

Student readiness and differentiated instruction. According to readiness theory, instruction below a student's level of current mastery will not lead to growth and learning whereas instruction too far above the level, will lead to frustration and a lack of growth as well (Csikszentmihalyi, 1997). Therefore, lessons, it is assumed, should be at each student's appropriate level for growth. Tomlinson (2003, 2010), therefore, asserted that instruction targeting the majority of students does not consider learner variation and will not lead to learning for all learners.

In support of readiness theory, Csikszentmihalyi, Rathunde, and Whalen (1993) interviewed and collected data from 200 teenagers to develop a systematic phenomenology identifying what motivates a teenager to pursue their talents. Over the course of a week, the students filled out self-report forms at times decided by the researchers. When paged, the participants wrote about their activities, thoughts, and mental states. An important factor identified throughout the 7000 entries was the importance of the appropriate level of difficulty for each individual student. Positive experiences at school with passionate teachers were found to be of extreme importance to students' achievement. However, the researchers found that, "Two adverse conditions are especially dangerous: anxiety and boredom. Anxiety occurs primarily when teachers expect too much from students; boredom occurs when teachers expect too little" (p. 10).

Other researchers have attempted to analyze language learning in terms of learner readiness by using a sociocultural framework (Vygotsky, 1986, 1997), specifically exploring 'the zone of proximal development' (Adair-Hauck & Donato, 1994; Aljaafreh, & Lantolf, J., 1994; Antón, M. & Dicamilla, 1999). The zone of proximal development (ZPD) has been defined as a theoretical space where learning occurs when an 'expert' participates in, "a dialogue with the 'novice' (learner) to focus on emerging skills and abilities" (Richard-Amato, 1988). Adair-Hauck and Donato (1994) followed one student (novice) interacting with an 'expert' teacher for one-hour long storytelling session in French. The researchers documented the process that the novice followed from initial introduction of a new form (present tense of -ar forms) through the end of the session when the student could use the form. The researchers concluded with a call for instruction that shifts from a focus on textbook-based grammar instruction towards individualized instruction focused on student use of communicative functions at their proficiency level and readiness. In a similar study, Palincsar (1986) analyzed dialogue identified as 'scaffolds' during discourse between eight first grade teachers, each working with a group of six students, during an interactive session designed to scaffold learning for 20 days of thirty-minute sessions. The author concluded that learning increased (by 100% based on a post-test) when there was teacher support for students' contributions at the students' individual readiness level.

Student interest and differentiation. Student interest, defined as "that which engages the attention, curiosity, and involvement of a student" (Tomlinson, 2010a, p. 16), has been identified as an additional factor to consider in differentiation. Interest-based instruction has been linked to increased motivation and investment in learning, which have both been shown to facilitate academic success (Hamayan & Damico, 1991). Alignment between student interest and instruction leads to greater student satisfaction and intrinsic motivation, creativity, and student productivity (Sharan & Sharan, 1992). Csikszentmihalyi et al. (1993), in their study looking at teenagers and talent, also identified interest/activity alignment as key to developing a "flow" in which students would become completely involved in a task and all sense of time and fatigue would disappear. Researchers also suggest allowing students to choose reading selections of

their interest, form their own research questions, and participate in discussion related to topics of interest (Schlechty, 1997).

Since 'motivation' as a concept does not include an analysis of the unequal power relations between language learners and target language speakers, Norton chose to develop the construct 'investment.' "If learners 'invest' in the target language, they do so with the understanding that they will acquire a wider range of symbolic and material resources, which will in turn increase the value of their cultural capital" (p. 353). Duff (2002) for example, working in a multilingual middle school, found that students who did not feel they were proficient in English would use silence as a way to protect themselves from humiliation during classroom interactions. Due to unequal power relations, the English learners were not 'invested' in classroom participation and were thereby labeled 'unmotivated' by the English speaking students and teachers. Norton (2010) concluded that, "classroom practices can recreate subordinate student identities, thereby limiting student access not only to language learning opportunities, but to other more powerful identities" (p. 361).

Investment has also been shown to influence student language choice and participation in young children in TWI schools (Celedón-Pattichis & Turner, 2012; Morren Lopez, 2011; Volk & Angelova, 2007) and adolescents in TWI continuation programs (Bearse & de Jong, 2008). Morren Lopez, (2012) interviewed immersion students as young as first grade and found that they do, indeed, develop their own individual language ideologies regarding language choice, how language is learned, and the importance of biliteracy.

Potowski (2007b) applied the concept of investment to a Spanish TWI school in Chicago in her ethnographic study. She focused on two students including a second language learner, English home language (EHL), and a heritage language learner, Spanish home language (SHL), in Grade 5. She used investment theory to justify studying individual students as the unit analysis. "...[G]iven the personal nature of investment and identity, each student had his or her own configuration of sometimes contradictory attitudes and linguistic behaviors, and each student was differently positioned by classmates and by the teacher" (p. 93). She analyzed her extensive data set to determine language use patterns in school, in the classroom, and outside of school for

each of her four focal students. She concluded that favorable investments in the identity of "Spanish speaker" led to greater Spanish use. However, the factors that determined each student's investment were complex regardless of the home language. Melissa, (White, EHL), who did not speak Spanish at home, appeared to be motivated by her family's pride in her ability to speak Spanish. She developed greater investment in L2 proficiency than Otto, (African American, EHL) who had limited proficiency in Spanish and tended to use more English in school. According to the teacher, Otto would shout out answers in class in English and copy answers from other students when working in small groups in Spanish. According to Otto, "I keep forgetting to speak Spanish and I'm not getting it that much" (Potowski, 2007b, p. 112). Carolina, (Latina, SHL), had developed a strong investment in her bilingualism (including Spanish maintenance) and was reported by her teacher to appear to be proud to speak it. Matt (Latino, SHL), however, tended to "refuse" Spanish, according to his teacher. Since he positioned himself as resistant to classroom requirements, he may have incorporated a rejection of Spanish language as a part of his "rebel" identity. His stepfather did not speak Spanish, so Matt received minimal reinforcement of his Spanish use at home, which, Potowski theorized, may also have played a factor in his decreased investment in Spanish language acquisition. While gender and race may also have played a part in the overall student investment, it is clear that, while complicated, student investment is related to language acquisition for both EHL and SHL students.

  Student learning profiles and differentiation. While Tomlinson's first two criteria for differentiation-student readiness and student interest--have been consistent throughout her writing, the third criteria--student learning profile--has shifted from a focus on learning styles, to a more complex and varied construct. Learning styles originally included Gardner's (1985) student intelligence preferences (verbal-linguistic, logical-mathematical, kinesthetic, interpersonal, intrapersonal, musical-rhythmic, spatial, analytical, practical, and creative), gender, and culture (Tomlinson, 1995, 1999). However, Tomlinson (2003) later recommended reflecting on, "environment, emotions, interactions, and physical needs, ... factors as light, temperature, seating arrangements, demand for concentration, degree of learner mobility, time of day, and perceptual mode" (p. 129). This overarching construct has been criticized as too broad (appearing to include

innumerable and ever-changing factors) and does not acknowledge sociohistorical factors that lead to socially constructed notions of power and privilege related to individual characteristics (Stavroula et al., 2011). While a number of studies have connected learning styles to increased academic achievement (Dunn, Griggs, Olson, Gorman, & Beasley, 1995; Sternberg & Zhang, 2005), Tomlinson collapses complex constructions such as culture and gender into essentialized categories that do not fully explore the ways these categories intersect in the classroom and promote or constrain academic achievement.

      Challenges with research on differentiation. Despite the extensive amount of material available explaining to teachers *how* to differentiate, it is difficult to construct research studies evaluating differentiation as a complete package due to the large number of variables involved (Subban, 2006). There is a documented lack of concrete research supporting specific DI practices that increase academic achievement for diverse learners (Callahan, 1996; Callahan, Moon, Oh, Azano, Hailey, 2015; van Tassal-Baska, Zuo, Avery, & Little, 2002). Three reasons have been identified by Callahan, et al. (2015, p. 139) to explain this gap in the research:

      (a) difficulty with establishing effective outcome measures (Hunsaker, Nielsen, & Bartlett, 2010);

      (b) complexities in determining the extent to which these models are responsible for observable and measurable outcomes using experimental paradigms (Sanchez, Steckler, Nitirat, Hallfors, Cho, & Brodish, 2007), and;

      (c) lack of data on fidelity of implementation (O'Donnel, 2008).

      Another prevalent focus of research on differentiation relates to teachers' *ability* to implement differentiation strategies (Blozowich, 2001; Brimijoin, 2002; Callahan, Tomlinson, Moon, Brighton, Hertberg, 2003; Johnsen, 2003; Moon, Tomlinson, & Callahan, 1995; Tomlinson, 2001; Tomlinson, Moon & Callahan, 1998; Robison, 2004; Schumm & Vaughn, 1991). Researchers continually find that teachers do not differentiate their instruction, even in cases where students have identified special needs or are working to develop English proficiency (Tomlinson et al., 2003; Fletcher, Bos, & Johnson, 1999; Reis, Neu, & McGuire, 1997).

Differentiated Instruction and Linguistically Diverse Learners

The DI literature reviewed above offers few clearly transferable findings upon which we can build our understanding of how DI works in the classroom. However, there are even fewer recommendations related to DI for linguistically diverse learners. Mainstream DI literature rarely includes strategies to support language development aimed at linguistically diverse learners. A review of two of Tomlinson's recent books (Tomlinson & Moon, 2013; Tomlinson & Imbeau, 2010), for example, reveals a complete lack of discussion regarding the importance of language acquisition and linguistic diversity. Another DI author, Heacox (2009), has included few adaptations for ELs in her materials. These minimal adaptations presented are mainly related to what the learners *cannot* do (e.g., respond in full sentences or paragraphs) and are accompanied by suggestions for teachers to limit their language according to each student's proficiency level (e.g., show me, list, label, etc.). There are no recommendations for how to expand students' language production or promote linguistic complexity. In a recent book, Wormeli (2007), another DI proponent, has provided only one recommendation for teachers working to differentiate instruction for ELs, "Pair nonnative speakers with students who have strong literacy skills and let them practice reading aloud" (p. 40). The myriad approaches for promoting language acquisition for linguistically diverse learners are absent from mainstream DI literature and few meaningful recommendations are provided for teachers.

Based on a review of the literature, it is clear that traditional differentiation, focused on the inclusion of special needs and gifted students in the mainstream classroom, does not address issues related to linguistic diversity. There is a need to expand Tomlinson's DI construct to include instruction that is responsive to linguistic variation. The following studies describe teacher-implemented differentiated instruction meant to promote language acquisition and academic achievement for English language learners in mainstream classrooms and for learners in linguistically diverse contexts.

English learners and differentiation. Authors who write mainly about English learners tend to present differentiation as a variety of language-related strategies that can be implemented in content-based classrooms. Teachers are increasingly encouraged to differentiate for ELs in the mainstream classroom and to include language objectives

along with content objectives in their lessons (Echevarría, Vogt, & Short, 2014; Fairbairn & Jones-Vo, 2010). However, identifying one language objective per content lesson would not meet all learners' language development needs. Authors who do recommend differentiated language objectives (Fairbairn & Jones-Vo, 2010) provide elaborate descriptors for a number of language levels and modalities (reading, writing, listening, and speaking), all of which would be extremely difficult to implement in the classroom.

  In contrast, Lucas and Villegas (2013) provided a more comprehensive model for working with language-focused differentiated instruction. They called for a 'linguistically relevant pedagogy' that prepares teachers to teach ELs in mainstream classrooms. Practices recommended by the researchers include cultivating a sociolinguistic consciousness, a value for linguistic diversity, an inclination to advocate for ELs, a repertoire of strategies for developing *bi*literacy, an understanding of the key principals of language learning, an ability to identify language demands of academic tasks, and a repertoire of tasks for specifically working with ELs (p. 101-102). The authors outlined and argued for including each goal throughout the teacher education process. Lucas, Villegas and Freedson-Gonzalez (2008) expanded upon this model by defining 'linguistic responsiveness' as a teacher's, "(a) familiarity with the students' linguistic and academic backgrounds; (b) an understanding of the language demands inherent in the learning tasks that students are expected to carry out in class; and (c) skills for using appropriate scaffolding" (p. 367). Parsons, Dodman and Burrowbridge (2013) also argue for expanding the view of differentiated instruction to include specific populations of students instead of using the general DI guidelines. They advocate for ongoing and varied assessment, increased emphasis on effective pedagogy, and reflective practice to tie assessment findings to appropriate instructional strategies. De Jong, Harper and Cody (2013) emphasized the importance of specific differentiation for language learners. "Teachers of ELLs also need to be able to appropriately and explicitly scaffold cooperative learning activities for academic talk and equal participation for ELLs, particularly those at lower proficiency levels" (p. 92). They emphasized that simply placing lower proficient with higher proficient students is not sufficient and will not necessarily increase learning. Other researchers have cautioned that less proficient

students tend to be silenced when they are placed with higher proficient peers (Tedick & Young, 2014; Valdés, 2001; Young & Tedick, in press).

A few researchers have provided descriptive data of how teachers work to differentiate for ELs. Working with high school ELs in three racially and socioeconomically diverse Long Island, New York school districts, Giouroukakis and Honigsfeld (2010) documented ways that four teachers differentiated instruction in order to prepare their language learners for high stakes tests. The authors conducted a multi-case study (using observation, interviews, online survey questions, and document analysis) over a five month period to look at teachers' practices that supported a learner-centered environment utilizing individual student strengths. From observations and field notes (of at least three lessons per teacher), three semi-structured interviews per teacher, and open-ended online survey questions, the researchers identified recurring patterns in instruction and generated possible explanations for teachers' decision making. They found that the teachers used instructional materials to directly prepare the students for language demands of assessment while simultaneously working to develop differentiated linguistic resources of their students. The strategies they used to differentiate instruction included linguistic scaffolding techniques such as vocabulary sense-making activities, sentence starters, model paragraphs, essay frames, graphic organizers, and strategic opportunities for interactions. The students were encouraged to use their home languages during sense-making activities and texts were chosen related to the students' lived experiences. However, these teachers worked in pullout EL classrooms and were therefore differentiating within these small classes, not in the mainstream classroom. Additionally, the study was mainly concerned with the effects of test preparation and the acquisition of English. The authors concluded with a call for teachers to, "differentiate instruction for ELLs who may differ from each other as well as from their native English speaking peers in terms of learning styles, academic strengths, literacy levels, prior educational experiences, and so forth" (p. 493).

Santamaria (2009) created a theoretical construct connecting the tenets of differentiated instruction (Tomlinson, 2010a) to the core beliefs of culturally relevant pedagogy (Ladson-Billings, 2009), and then applied this construct to the education of ELs. Santamaria critiqued Tomlinson's framework of differentiated instruction in that it

fails to provide specific information for teachers on the unique challenges and strategies for working with language learners and for working with linguistically diverse student populations. The author aligned the core concepts of culturally relevant pedagogy with content, process, and product expectations of differentiated instruction. She then applied her framework to a qualitative analysis of two elementary schools in North San Diego County, CA. However, the schools she analyzed had fewer than 40% of families receiving free and reduced priced lunch (FRPL), a common measure of poverty, and fewer than 20% English learners. So while it may be helpful to practitioners and researchers to have access to the rich description and analysis of how both differentiated instruction and culturally relevant pedagogy were applied in the schools, the challenges she described in her framework might be better illustrated in a school with higher rates of FRPL families or more English learners.

Although the literature calls for language-focused differentiated instruction that meets the needs of linguistically diverse learners (de Jong, Harper, & Coady, 2013; Parsons, Dodman, & Burrowbridge, 2013), it has been shown that overall teachers do not differentiate for any students with special needs (Tomlinson et al., 2003; Fletcher, Bos, & Johnson, 1999; Moon et al., 1995; Reis et al., 1997). Fletcher, Bos and Johnson (1999) documented ways that two novice bilingual teachers created accommodations for their third grade learning-disabled student who was struggling with language proficiency. Through teacher interviews and classroom observations, the researchers determined that teachers tended to use whole group, undifferentiated instruction, and that most accommodations were in terms of seating, the use of pairing and cooperative learning, as well as time to complete tasks. Teachers may choose not to differentiate for linguistically diverse learners since they see the learning problems as internal to students. Teachers in Tomlinson's surveys, for example, assumed that students who struggled were deficient in ability, instead of identifying a misalignment between instruction and student characteristics (Tomlinson, Callahan, & Lelli, 1997). Other researchers have found that pre-service teachers tend to position working with English learners as problematic and difficult (Dooly, 2005). According to Souto-Manning (2012), "Students from linguistically and culturally non-normative backgrounds are more likely to be

disadvantaged due to (mostly White) teachers' ethnocentric tendencies, beliefs, and perspectives" (p. 307).

However, Nason (2012) explored a teacher study group of three third grade teachers working with linguistically diverse students in a mainstream context. Through this five-month qualitative study, the author found that the teachers did shift their practice to integrate language into content instruction (during math class) for their English learners. This study concluded that when teachers are provided with time and a safe space in which to talk, language-focused differentiated instruction can be successfully implemented in the classroom. Wager (2014) came to a similar conclusion in her study looking at the effect of professional development efforts meant to increase teacher attention to student participation frameworks. Thirteen teachers from four different schools met to discuss how their students participated during math instruction. The schools ranged from under 10% ELs to over 40%. Through classroom video analysis and reading reflections, the teachers shared findings regarding which students participated during large and small group discussion and why. Teachers evolved in their understanding about how their practice could support fuller student engagement and participation. While the teachers arrived at general improvements they could make to their practice, they especially expanded their understanding about how to work with particular children. Teachers grew in their awareness of the importance of and viability of differentiated structured support to promote student participation. Both studies raise important questions about the importance of *how* differentiated instruction is implemented for linguistically diverse learners as opposed to only looking at *what* it could look like in the classroom.

Two-way immersion differentiation and linguistic diversity. Language-focused DI may be particularly important for teachers working in TWI programs, because TWI students have a wide range of language proficiencies and linguistic backgrounds. Montrul (2012) recommended that teaching in classrooms with mixed language backgrounds include differentiated form-focused instruction. According to Montrul (2012), "If heritage learners and second language learners have difficulty with the same grammatical areas, a logical next step is to investigate whether they react to instruction in

32

the classroom in the same way, and to study what type of instruction may be most beneficial to the two groups of learners" (p. 111).

While there are no studies exploring the effects of specific differentiation strategies in TWI programs, a number of researchers have described differentiated teaching and learning as it occurs moment-to-moment in existing programs. Martin-Beltrán (2009) analyzed the differentiated processes that emergent bilingual students used to co-construct language expertise in a grade five TWI classroom. Working in a linguistically diverse 5th grade classroom, she observed and interviewed 30 students (who included recent arrivals from Mexico, 20 bilingual children from primarily Spanish-speaking homes to varying degrees, and seven English home language students) and three teachers for her ethnographic study. Similar to other researchers looking at linguistic diversity in TWI classrooms, she identified examples of language brokering (Coyoca & Lee, 2009; Dorner & Layton, 2014; Gort, 2008; Lee, Hill-Bonnet & Raley, 2011; Olmedo, 2003) in which students interpreted between Spanish and English for each other to mediate communication. She also documented interplay between languages, ways that students and teachers recognized student language expertise, strategies used to call attention to language, and opportunities during instruction when students worked to co-construct knowledge around language. She recommended that TWI teachers become aware of these student-focused strategies and integrate them into the planning and instruction to take advantage of the unique ways that students from different language backgrounds facilitate each other's academic achievement. Specific teacher-implemented strategies that appeared to facilitate differentiated instruction included asking questions about specific words, explicitly making connections to similarities and differences between languages, creating sense-making activities (such as "write alouds") that encouraged students to externalize their private speech, and creating affordances for mutual scaffolding between students with diverse linguistic funds of knowledge. The author concluded that, "teachers need to plan activities which require multiple voices and encourage participants to draw upon their different strengths in different languages to co-construct texts" (p 47).

Wiese (2004), in her ethnographic study of a TWI program in California, documented the tension between the dominant TWI models and the realities of current

students in the school she studied. She identified the teachers' attempts to differentiate instruction for particular groups of students "based on their language and literacy abilities, a distinction that fell along racial and socio-economic lines" (p. 70). The school had developed a policy that all students would start literacy instruction in Spanish in kindergarten, but English home language students were placed in three different reading groups to differentiate instruction in first grade. In this particular classroom, the least able EHL readers (two African American students), those who were struggling with literacy skills, were switched to exclusively English literacy instruction and their immersion experience was limited to Spanish oral language. The most fluent EHL readers (two White students) were expected to develop both Spanish oral language proficiency and literacy, and the middle EHL group (one White student and one Latino student) was directed to work only on phonics and decoding in Spanish. In this case, the teachers at the school had chosen to differentiate instruction by eliminating the Spanish biliteracy component for some students and limiting it to decoding skills for others. The Spanish home language students (11 students), despite extensive differences in reading proficiency, were kept in the same (large) reading group (13 students including the most fluent EHL students) with differentiated learning objectives but little attention from the teacher. These students "focused on choral reading of texts, brief discussions, and individual writing activities" (p. 85). The teacher was labeled a mere taskmaster by the researcher. She tended to pair EHL with SHL students so they could, "draw upon their Spanish speaking peers as a resource" (p. 85). The author concluded by arguing that TWI teachers are not only implementers of a model, but decision-makers who will need to enact strategies for differentiating instruction based on their context. Without a solid research base to support DI decision-making in TWI, teachers will need to make instructional decisions based on anecdotal information and past experience.

At least one researcher, however, has documented more successful attempts to differentiate in TWI contexts. Hernández (2011) completed an ethnographic case study of first- through sixth-grade Spanish/English TWI classrooms and documented how nine teachers differentiated instruction based on language proficiency. According to Hernández (2011):

Instructional strategies addressed the needs of the population of ELs and English

proficient students by increasing the complexity of the tasks or structures for

native speakers, while supporting second language learners to acquire the same

objectives through scaffolding practices when students were integrated for

instruction. (p. 143)

Teachers mainly used flexible grouping and different mediums of presentation. However, Hernández identified the difficulties involved in using authentic Spanish language materials (beneficial to more proficient students) due to the language complexity that less proficient students were unable to access. She also listed EHL fossilization of incorrect Spanish grammar structures as a worry for the teachers. In particular, teachers wanted strategies that would scaffold small group participation and facilitate Spanish oral language proficiency.

Need for DI in immersion programs with home language diversity. In order to explore the unique cultural and linguistic experiences of African American (AA) EHL students in TWI programs, Anberg-Espinosa (2008) completed an interpretive study based on the experiences of nine AA students and their parents in a small charter TWI program in northern California. The students all spoke African American English (AAE). Based on interviews, observations and surveys, the author explored the implications of language learning with students who brought standard and non-standard varieties of English and Spanish as they worked to become proficient in standard, academic English and Spanish. The author cited Bender (2000) in identifying the lack of differentiation based on home language (including EHL) as a major problem that restrained equal access to the TWI learning process. Anberg-Espinosa found that students who remained with the program did so mainly due to factors including their level of contentment with their language abilities and the future potential for them to maintain their dual language abilities. They reported receiving DI for their unique linguistic needs only through afterschool interventions and summer school in Spanish and English. Few classroom-based language supports were identified despite the fact that teachers reported all students as having language-related challenges. In a similar study focused on SHL students with non-standard Spanish proficiency (recent arrivals), Muntean (2011) analyzed interview data with teachers in a High School Spanish TWI continuation program. Teachers

identified differentiation as a major challenge due to the large range of language proficiencies in the classroom.

Other TWI contexts have identified the need for linguistic differentiation based on linguistic diversity as well. Hickey (2007) working in an English and Irish bilingual preschool context identified the need for DI in order to avoid first language loss on the part of Irish home language children. The author emphasized that English dominance appeared to influence the students' choice of language starting in preschool. Irish home language children spoke English with EHL students while EHL children spoke English no matter who the interlocutor. Hickey (2007) concluded with a call for differentiated instruction in programs that promote integrated instruction of both language and content with linguistically diverse learners:

> There is a need for intervention to ensure that attempts to enlarge the pool of L2 learners of Irish is not at the cost of the L1 speakers who need active language enrichment ... L1 speakers of a minority language need an appropriate curriculum, differentiated language plans, and some periods at least when they are deliberately grouped together to provide support and enrichment for that language, as some protection from the overwhelming tide of the majority language which washes up even into their homes. (p. 63)

Lessons Learned

Mainstream differentiation literature provides a helpful conceptual framework with which to structure the instructional sequences implemented in this study. However, the most popular work reviewed here tends to ignore linguistic diversity or position bilingualism as a deficit. Literature calling for linguistically-responsive differentiation provides a limited amount of empirical data upon which teachers can base their decision-making. Although the research has generally shown that teachers tend to avoid differentiating to support language learners, there is limited evidence showing that teachers can and will differentiate when given the time and space for learning how to implement DI. A review specifically of the literature specifically related to TWI reveals a clear call from researchers for practitioner-implemented differentiation strategies that can address the range of linguistic diversity and home languages found in these programs. Although a number of studies have documented the need for differentiated attention to

learners' linguistic needs, there are no studies that look at how students respond to language-focused differentiated instruction. This is unfortunate since empirical evidence in this area could assist teachers in their attempts to promote bilingualism for all students. There is also a dearth of research exploring the ability of *specific* DI strategies to expand students' linguistic resources in TWI contexts. This dissertation begins to fill this gap by providing empirical evidence describing proactive language-focused DI in TWI contexts.

Linguistic Complexity

In order to explore the relationship between DI and oral language proficiency development, this study relies on complexity measures as a way to examine student language growth. In this section, I review the literature connecting linguistic complexity to oral language proficiency development.

Language Background and Linguistic Complexity

Researchers exploring oral language acquisition and linguistic complexity in immersion programs have documented differences between EHL and SHL students. In one-way immersion programs, EHL students tend to use constructions to get their message across with a limited degree of linguistic complexity (Bild & Swain, 1989). In regards to Canadian French immersion, immersion students' use of French has been described as nonnative-like with restricted vocabulary and simplified syntax (Day & Shapson, 1996; Genesee, 2004; Harley, 1992; Lyster, 2007; Swain, 1998). Genesee and Lindholm-Leary (2013), in discussing EHL students in TWI programs, have pointed out that TWI students also struggle with language development and posit that,

> It may also be that teachers who are teaching content through an L2 tend to rely on linguistic forms, including vocabulary, grammar, and discourse-related, that students have already acquired in order to ensure that input is comprehensible and that new content is mastered. Thus, the complexity and accuracy of students' L2 competence may be limited by the input they receive. (p 23)

Potowski (2007a) has shown that by 8th grade, some EHL students in a TWI program in Chicago never produced particular forms, such as the conditional or subjunctive moods.

SHL students as well may have only receptive (or limited productive) competence in Spanish (Klee, 2001; Valdés, 1997) and, despite participating in a TWI program, may

be affected by incomplete acquisition of Spanish which occurs when SHL students transition to English dominance prior to the acquisition of some forms (oral and written) that normally develop after the ages of 4 or 5 in monolingual Spanish speakers (Potowski, 2007a, 2007b). Incomplete acquisition may occur in TWI when there is overly simplistic input in Spanish, an increased value placed on English acquisition, or a lack of complex academic input and expectations for output (Montrul, 2005). While SHL students in TWI programs have been reported to achieve "balanced bilingualism" in English and Spanish as early as grade 5 (Howard, Christian & Genesee, 2004), they tend to become more dominant in English over time and develop non-native-like aspects in their Spanish (Potowski, 2007a, 2007b). One oral proficiency evaluation project (Fortune & Arrabo, 2008) showed that EHL students outperformed SHL students in Spanish oral language proficiency in the district's immersion programs by grade eight. Researchers hypothesized that this was due to SHL students' lack of Spanish academic language development and lower levels of literacy in the TWI programs. Montrul and Potowski (2007) studied the degree that students in a Chicago TWI school experienced incomplete acquisition (as determined by an early exposure to English) in grammatical gender. Since no decline in accuracy was found as SHL students progressed through school, as is normally found in non-immersion schools (Anderson, 1999), researchers concluded that TWI programs were supportive of language maintenance. However, the increase in acquisition with age was not sufficient for them to conclude that this TWI program was *promoting* language acquisition for SHL children (but instead *preventing* language loss). Additionally, Potowski (2007b) found that SHL students in grade 5 and 8 were more proficient in English than in Spanish.

Both SHL and EHL students may be receiving simplified input and producing limited output in TWI programs. Angelova, Gunawardena and Volk (2006) studied 1st grade TWI students and found that SHL students used repetition, codeswitching, and non-verbal communication to talk with EHL students. However, the EHL students rarely used Spanish and their knowledge appeared to be limited to memorized phrases, dialogues and songs. A typical example presented here occurred during math class. Four students (2 EHL and 2 SHL) were supposed to be using Spanish to complete a math assignment. Lori (EHL) relied on her formulaic knowledge of Spanish in order to

communicate with Beatríz (SHL) and Tania (EHL). Karla (SHL), however, appeared to soon grow tired of the limited amount of authentic language being produced (Angelova et al., 2006, p. 186).

Lori: Hola. [Hello.]

Beatríz: Hola. [Hello.]

Lori: ¿Cómo estás? [How are you?]

Beatríz: Muy bien gracias. [Very good thank you.]

Lori: ¿Y usted? [And you?]

Beatríz: Bien gracias ¿y usted? [Good thank you and you?]

Lori: Wait. Wait. Wait. ((begins to sing to the tune of 'Where is Thumbkin?')) Buenos taldes. Buenos taldes. [Good afternoon. Good afternoon. (('afternoon' with an accent used by some Puerto Ricans))] ((Beatríz and Tania join in with Karla towards end of verse)):

Lori: ¿Cómo estás? ¿Cómo estás? Muy bien gracias. Muy bien gracias.¿Y usted? ¿Y usted? ((pause)) Buenas tardes. [How are you? How are you? Very good thank you. Very good thank you. And you? And you? good afternoon.]

Karla: OK, no more. No more. No more. ((turns attention to Lori and Beatríz who are still singing)) No more! No more! ((looks at Tania and points to the two singing))

Lori: Aquí español. [Here in Spanish.]

The author concluded that TWI programs may run the risk of failing to develop students' language beyond simplistic, formulaic phrases unless teachers are able to create language supports that promote extended language.

To maximise the learning of a second language through peer interaction, teachers should consider organising effective collaborative learning activities in which they take into account: (1) the language proficiency level of each child (novice, expert, or dual language expert); (2) the context in which the activity will take place (Spanish or English classroom); (3) the nature of the tasks and the materials

to be used; and (4) the type of grouping and role distribution in the small groups. (p. 189)

Linguistic Complexity Measures

"Complexity is the extent to which learners produce elaborated language" (Ellis & Barkhuizen, 2005, p. 139). According to Skehan (2009), complexity can refer to a student's willingness to use elaborated language (the language that learners have not yet internalized). However, complexity can also refer to the ability that students have to use a range of simple and more advanced syntactic structures (Ellis & Barkuizen, 2005, p. 139).

According to Norris and Ortega (2009), measurements of linguistic proficiency, such as complexity measures, are intended to illustrate how learners' language changes as acquisition occurs. Additionally, they assert that the major objective for researchers who analyze language development:

is to account for how and why language competencies develop for specific learners and target languages, in response to particular tasks, teaching, and other stimuli, and mapped against the details of developmental rate, route, and ultimate outcomes. In other words, instructed SLA researchers seek to understand phenomena that make a difference in teaching and learning, first and foremost. (p. 557)

The authors identified five major categories found in the literature for measuring complexity: (a) length (mean length of utterance), (b) amount of subordination, (c) degree of coordination, (d) variety, sophistication, and acquisitional timing of grammatical forms used in production, and (e) total frequency of use of certain forms considered to be sophisticated. They argue that often researchers choose only one of the measures or they combine a number of measures of the same linguistic categories. They recommend that researchers choose a variety of measures from more than one category in order to get a better picture of how a students' language is progressing.

Citing SFL (Halliday and Matthiessen, 1999), Norris & Ortega (2009) outline how SFL conceptualizes syntactic development of language as learners progress in their proficiency. Halliday and Matthiessen (1999) theorize that language develops from (a) parataxis (i.e., coordination) sequencing of single words, sentences, and clauses to

express ideas; through (b) hypotaxis (i.e., subordination) connecting ideas through syntactically more complex texts; and finally (c) the use of grammatical metaphor (i.e., nominalization) that leads to lower levels of subordination but higher levels of lexical density with fewer clauses. Norris and Ortega therefore argue that initial proficiency is best assessed through coordination measures (e.g., number of coordinated main clauses), intermediate proficiency can best be evaluated via subordination indexes (e.g., mean number of main and subordianted clauses per unit), and advanced proficiency language samples can be described through measures that look at lexical variety and density (e.g., mean length of unit, lexical uniqueness, type/token analysis). They, therefore, recommend that researchers take proficiency levels into account when they choose a measure.

In order to analyze oral language, boundaries must be established in order to break up learner language into comparable units. Syntactic units (Foster, Tonkyn, & Wigglesworth, 2000) are recommended in the literature since semantic units (determined by meaning) and tonal units (determined by tone) are overly subjective. Syntactic units are determined by grammatical constructs and tend to be labeled "terminal units" (T-units), "communication units" (C-units), or "analysis of speech units" (AS-unit). All three consist of an independent clause and any subordinate clause(s). Depending on the study, false starts, functionless repetitions, and self-corrections are dealt with in specific ways. Syntactical unit length tends to increase in length as grade level advances (Hunt, 1970; Klecan-Aker & Hedrick, 1985; O'Donnell, Griffin & Norris, 1967).

While T-units were developed to work with written language (Hunt, 1970), C-units were created specifically to analyze oral language (Loban, 1976). Like T-units, C-units are independent clauses plus their modifiers (Loban, 1976), however C-units include language typical of oral interaction, including words such as "yes," "no," "oh" and other sub-clausal units in the analysis (Craig, Washington, & Thompson-Porter, 1998). C-units have been chosen as the unit of analysis for this study due to their applicability to oral language analysis, their prevalent use in comparable studies (Iglesias & Rojas, 2012; Loban, 1976; Miller & Iglesias, 2008; Rojas & Iglesias, 2009, 2013; Skehan & Foster, 2005), and their non-tonal evaluation, thereby avoiding confusion in segmentation.

Laine (1978) used C-units to measure linguistic skills of successful and unsuccessful readers among African American, Latino, and White 7- and 10- year old boys from middle and lower SES homes in Los Angeles. After comparing the C-unit lengths produced during picture description activities to the students' reading levels, the authors found that successful readers had longer C-units than unsuccessful readers. It has been shown that increased oral language complexity is correlated to literacy achievement (Erdos, Genesee, Savage, & Haigh, 2010; Geva, 2006; Geva & Yaghoub Zadeh, 2006; Melby-Lervåg & Lervåg, 2011). Other studies have also shown that in the case of young children developing additive bilingualism, language complexity clearly expands as students grow linguistically before age 13 (Klee & Fitzgerald, 1985; Miller, 1991; Miller & Iglesias, 2008).

Craig et al. (1998) used C-unit analysis to explore oral language development of African American students who spoke AAE at home and were developing Standard American English (SAE) in school. The study looked at the student language of 95 4- to 6 1/2 year old AA boys (n=45) and girls (n=50) who were users of AAE (and were not receiving services for special education or speech and language). The authors argued that C-unit length accurately indexed linguistic complexity. Working with spontaneous oral language samples collected in natural interactions, they measured mean length of C-unit in words (MLCU-w) as well as mean length of c-unit in morphemes (MLCU-m) in an attempt to identify a connection to increased complexity as students began to include more relative clauses and adverbial relationships in their oral language production. Among other findings, the authors found that there was a positive correlation between MLCU-w and MLCU-m and linguistic complexity[1] The percentage of students in the top and bottom quartiles using more complex syntax was determined. Their C-unit analysis showed that more proficient students (greater use of complex structures) had longer C-unit lengths. There was a clear correlation between greater linguistic complexity and longer C-units as measured quantitatively through both MLCU-w and MLCU-m. Mean

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[1] Measured by different types of complex syntax such as (a) the use of infinitives with the same subject, (b) simple non-infinitives with Wh-clauses, (c) noun phrase complements, (d) let(s) + infinitives, relative clauses, (e) infinitives with a different subject, (f) unmarked infinitives, (g) Wh-infinitive clauses, (h) gerunds and participles, (i) tag questions, (j) coordinate conjunctions, and (k) subordinate conjunctions

C-unit length in words and morphemes, therefore, was determined to be a useful quantitative measure for interpreting oral language proficiency development.

Rojas and Iglesias (2009) have argued for using speech samples to measure linguistic complexity of bilingual students instead of standardized tests. They advocated for the use of programs such as Systemic Analysis of Language Transcripts (SALT) (Miller, Andriacchi, & Nockerts, 2011) to identify what students can do with language. Specifically addressing the needs of speech language pathologists, the authors argued that children should be tested in their home language first and then in English. They recommended digitally recording and transcribing language samples using SALT for Spanish speakers (Miller & Iglesias, 2008) in order to account for Spanish and Spanish-influenced English (Iglesias & Rojas, 2012; Rojas & Iglesias, 2013). They especially advised using dialect neutral measures to assess bilingual children's oral language development. These measures include mean length of utterance in words (MLUw) to measure syntactic complexity. According to Gutiérrez-Clellen, Restrepo, Bedore, Peña, and Anderson (2000), "MLUw maintains cross-language consistency and comparability and is recommended in cross-linguistic and bilingual research" (p. 2).

Lessons Learned

Studies show that without an explicit attention to language, both EHL and SHL students in TWI programs may not develop complex language as they progress through the immerstion program (Fortune & Arrabo, 2008; Montrul & Potowski, 2007; Potowski, 2007a, 2007b; Fortune & Tedick, in press). Therefore, isolating and analyzing linguistic complexity can illuminate how syntactic features develop and expand during language-focused differentiated instruction. In order to analyze complexity, specific measures and units will need to be determined and defined. Studies appear to support the theory that quantitative oral language proficiency measures (as analyzed by programs such as SALT) can indicate growth in syntactic complexity. However, there are currently no quantitative or qualitative studies looking at *how* teachers in linguistically diverse classrooms can facilitate the differentiated linguistic development of their students. Therefore, this study will fill a gap by exploring the effects of language-focused differentiated instruction targeting linguistic complexity.

Focus on Function

Larsen-Freeman (2009), while describing the interconnectedness of complexity to other aspects of language has called strongly for language acquisition research to be conducted within a broad theoretical framework that recognizes the nonlinearity of learning. She concluded that, "language performance and development are complex, nonlinear, dynamic, socially situated processes" (p. 588). In order to examine student responses to DI in a TWI classroom, this study also described language broadly as used in the classroom context to construct meaning. To do this, the study will use concepts from SFL. Studies using SFL and other types of functional analysis are described in this section.

Systemic Functional Linguistics

"SFL is a meaning-based theory of language, in which all choices speakers or writers make from the lexical or grammatical systems of a language are shaped by the social activities, such as education, in which they are involved" (Llinares, Morton, & Whittaker, 2012, p. 10). SFL sees language as a resource for meaning-making through interaction during particular activities, not a system of rules. While this study is not based on SFL, the aim is to look at how learners benefit from differentiated instruction as they learn language *and* content *and* to interact with their peers. All three of these facets of learning can be explored through an SFL-influenced discourse analysis.

Halliday (1994) theorized that the *mode* is the role that language plays in terms of written or oral delivery (language development), the *field* is the subject or socially recognized activity (linguistic mediation of content learning), and the *tenor* is the relationship between the participants (language to facilitate peer interaction). These three ways of seeing language translated into three types of linguistic meaning: *textual*, the linguistic structures that allow for mutual comprehension through discourse*; ideational*, the concrete knowledge (experience) as expressed through language; and *interpersonal*, social meaning that is negotiated during interaction. Within type of meaning, there are a variety of functions. Functions, defined as the tasks or purposes and uses of language (Halliday, 1973), can be both social (i.e., making jokes, exchanging greetings) and academic (i.e., justifying, drawing conclusions, etc.).

Descriptions of functional analysis with English learners. Researchers using SFL to describe EL classroom learning clarify which structures are associated with particular academic registers and fields and how to embed them in instructional practice (Early, 2001; Gibbons, 1998, 2006; Mohan & Beckett, 2003; Mohan & Slater, 2005; Schleppelgrell, 2004, 2013; Schleppegrell, Achugar, & Orteíza, 2004; Tang, 1997). Gibbons (2006) drew on data from two 5th grade EL classrooms (in which 90 to 95% were second language learners) during a science unit. Through a combined framework of SFL and other theoretical frameworks, Gibbons described how teachers worked with students to develop their oral and written language proficiency levels in specific functional categories. She used ethnographic approaches to show how students' academic discourse changed in terms of linguistic complexity (textual), content (ideational), and in relation to the teacher (interactional) over time. She illustrated classroom episodes and analyzed *how* students were supposed to learn (participant structures and modes: written or spoken) and *what* they were supposed to learn (knowledge constructed about science, knowledge constructed about language, and knowledge constructed about how to be a student).

Achugar and Schleppegrell (2007) used SFL to work with teachers scaffolding student language to increase functional complexity in historical writing. In this and other studies (Schleppegrell, 2013; Schleppegrell, Achugar, & Orteíza, 2004), the authors worked with teachers to identify specific academic language functions related to the ideational function in history class. However, their design-based research study did not present student learning results but instead explored how teachers responded to implementing SFL in the classroom (Schleppelgrell, 2013). However, these studies have attempted to separate ideational (academic) language from interpersonal in student discourse patterns. Because these metafunctions are enacted simultaneously, ignoring the interpersonal metafunction may be problematic since it ignores an important facet of all student interaction.

Dutro and Moran (2002) argued that English learners best develop their target language skills when instruction, "follows a developmental scope and sequence of language skills that builds from simple to complex structures within the context of a range of everyday and academic language functions" (p. 3). The authors looked to

Halliday's (1973) SFL perspective to build their approach on meaning and use as the central functions of language (as opposed to a skill-driven or natural acquisition approach). They explained that, "we teach past tense verbs so students can retell, comparative adjectives so they can compare, and the conditional tense so they can hypothesize" (p. 9). They identified, "explain," "infer," "analyze," "draw conclusions," "synthesize," "compare/contrast," and "persuade" as academic functions that should be explicitly taught to language learners. Along with forms (including vocabulary) and fluency, the authors outline a plan for how to integrate language instruction into content classrooms. They provided teachers with function charts that illustrate how utterances used to describe (for example) can expand from simple to complex (p. 9):

Beginning:	Brown, brown bear
Early Intermediate:	The bear is brown. It has claws.
Intermediate:	The brown bear has thick fur and sharp claws.
Early Advanced:	The brown bear isn't a predator even though it has sharp claws and teeth.
Advanced:	Before they hibernate for the winter, brown bears give birth to cubs.

They emphasized that in order to increase competence in language functions, learners must increase their linguistic complexity. They go on to assert that once a student learns a range of complexity levels for a specific function, they can then apply that knowledge to a new context and subject area (see Figure 2.1). Although Dutro and Moran's (2002) argument supports the current study's objectives, their article is mainly an instructive document for teachers and does not present original, empirical research.

Function chart for comparing/contrasting

Beginning	Early Intermediate	Intermediate	Early Advanced	Advanced
triangle square three four	Triangles have three sides. Squares have four sides.	A triangle has three sides, but a square has four sides. They both have straight lines.	Triangles and squares are alike because they both have straight lines. They are different because a triangle has 3 sides and a square has 4 sides.	While squares and triangles are similar because both have straight lines, a triangle is three sided and a square is four sided.
big ocean small lake	An ocean is big. A lake is small.	An ocean is larger than a lake.	An ocean is enormous compared to a lake.	An ocean is vast. Even the largest lake is small by comparison.
Eagles fly Penguins swim.	Eagles can fly. Seagulls can fly. Penguins can swim.	Eagles and seagulls can fly, however penguins cannot.	Eagles fly high, while seagulls tend to fly lower. Penguins can't fly at all.	Both eagles and seagulls have the gift of flight. However, penguins do not; instead they are able swimmers.
pig spider	Wilbur is a big pig. Charlotte is a small spider.	Wilbur is a young pig, but Charlotte is a grown spider.	Wilbur acts immature and panics a lot, but Charlotte remains calm and reassuring.	Wilbur appears immature and excitable, whereas Charlotte seems the voice of reason.

Source: A Teacher's Guide: A Focused Approach to English Language Development, CRLP, Dutro & Prestridge

Figure 2.1 Function chart for comparing/contrasting (Dutro & Moran, 2002, p. 11)

Zwiers (2007) completed a qualitative study to identify how teachers provided support for functional complexity in 7th grade science classes. Although he did not use SFL to analyze his data, he did document concrete examples of how teachers moved students' language from simple informal language to more complex expanded language within a functional framework. He observed three teachers' classes for two days per week during four months, focusing specifically on four focal students. He identified examples of scaffolding for expanding the communicative functions including cause/effect, comparison, persuasion, interpretation, and perspective. Zwiers documented how students' examples of academic language increased for each functional category throughout the duration of the study. He also identified instances of academic discourse to: support ideas with evidence, disagree or negate, add to another's point, and explain and define. He concluded by arguing that teachers should design "classroom activities that require complex thinking and language patterns" (p. 113) that include the need to interact about academic process and product.

Functional analysis in immersion contexts. Llinares et al. (2012) drew on a corpus of over 500,000 words from four different European countries (Spain, Austria, Finland, and the Netherlands) in secondary "content and language integrated learning" (CLIL) classrooms. Using SFL, the authors described the functions used both by teachers and students to promote language learning and academic achievement. They analyzed the data from an SFL perspective in order to illustrate how discourse worked in CLIL classrooms to promote both academic achievement and language learning at the secondary level. The authors provided examples from their corpus (a collection of data from other researchers) to illustrate both the language of academic subjects as well as individual students' academic (ideational) and interpersonal language development in CLIL programs. Llinares et al. (2012) explained that:

> Ideational meaning is of particular importance in CLIL as it maps onto how content knowledge is represented through talk and other communicative modes in the classroom. The interpersonal metafunction has particular significance in CLIL as it relates to how teachers use the L2 to manage social relationships in the classroom and how differing stances to the content that is being learned are expressed. The textual metafunction is of importance in considering how the texts through which content knowledge is constructed are put together and how teachers maintain the flow of information and coherence in stretches of discourse and guide the students from spoken to written texts in the L2. (p. 11)

This quote describes the role that SFL metafunctions play in facilitating immersion students' use of classroom interaction to meet their multiple communication goals.

A number of researchers have described the linguistic functions used in TWI, however, without using an SFL framework. Celedón-Pattichis and Turner (2012) looked at kindergarten math language used by both EHL and SHL students in a Spanish/English TWI. They identified precise math language that developed throughout the duration of the study. Through teacher modeling and probing, student explanations grew from short phrases that restated answers to longer, more complex descriptions of their mathematical process. Rubenstein-Avila (2003) described the functional language used in a second grade TWI classroom during buddy reading through peer assisted literacy strategies (PALS). The author identified meaning-making strategies including elaboration,

retelling/explanation (to provide structure and coherence to stories), and chronologically ordered questioning. Ballinger (2013) worked with students in a French immersion context (that included students from both English and French home language backgrounds) to develop the language functions of questioning, collaborating, and giving corrective feedback. Students from two classrooms were taught the functional language structures and then paired with students from a different language background for work that required peer interaction. During a seven-week intervention, Ballinger found that while the student use of the target language increased, the quality of their interaction was mediated by their support (or lack of support) for their partners' linguistic contributions.

Final Note: Function vs. Form

In order to develop language and content simultaneously, researchers have recommended a balance between "focus on form" and "focus on content" (for a review see Lyster, 2007). Form-focused instruction has been described in the literature as an instructional method in which particular linguistic forms are embedded into content-driven lessons and units (Ellis, Basturkmen & Loewen, 2002; Lyster, 2004, 2007; Lightbown & Spada, 2006; Swain & Lapkin, 2001). However, Mohan and Beckett (2003) argued that a focus on function (instead of a focus on form) will lead to the type of language growth that learners need in order to learn content material in a target language. In other words, the authors agreed that there should be "intentional language development and meaningful communication about content" (p. 422). They argued, however, that the focus should be on expanding students' language production, not correcting their mistakes. The authors used an SFL framework to compare grammatical scaffolding of causal explanations (corrective feedback) with form- vs. function-focused instruction in a French immersion and an ESL classroom. They analyzed corrective feedback discourse data from a functional perspective (with the goal of expanding language) that was previously analyzed to illustrate form-focused instruction (with the goal of accuracy and error correction). After outlining the challenges associated with learning advanced content in a target language (including learning the language of advanced registers, modes of literacy and academic discourses) the authors argued that, "We are not aware of any evidence or explicit and detailed claims that the correction of errors of grammatical form is a sufficient condition for the development of oral and written language as a

medium of learning as outlined above" (p. 423). It is argued that language is seen as a code of rules from a form-focused orientation, while SFL views language as a way to create meaning. The researchers documented how teachers facilitated the acquisition of the functional grammar needed to express causal knowledge structures (e.g., "Because a happens, x happens," p. 426) during a university-level ESL class. Examples were provided that show how teachers provided functional recasts to encourage students to expand the length and increase the academic quality of students' language:

> S[tudent]: To stop the brain's aging, *we can use our bodies and heads*
>
> T[eacher]: [RECAST] So, we can prevent our brain from getting weak *by being mentally and physically active?* (p. 423)

The authors compared functional recasts to the role that an editor plays in enhancing a writer's developing work. A teacher's role from an SFL perspective is to monitor meaning, recommend improvements, repair circumlocution, and elicit linguistic elaborations in collaboration with the student. The student makes choices regarding the uptake of suggestions and controls the final product in terms of functional relationship between language and meaning.

Lessons Learned

Functional analysis has been used to describe how children use classroom language as a tool for constructing knowledge about content, language and relationships. Researchers interested in academic language development have documented how functional language develops in classrooms. There are a number of studies that describe the functions that students and teachers use in content-based language learning contexts (Gibbons, 1998, 2003, 2006; Huang & Mohan, 2009; Lemke, 1990; Llinares, Morton, & Whittaker, 2012; Mohan & Slater, 2005; Schleppegrell, Achugar, Orteíza, 2004; Zwiers, 2007, 2008). There are also a number of theoretical documents that argue for the explicit teaching of functional language (Dutro & Moran, 2002; Lee, Quinn, & Valdés, 2013; Mohan & Beckett, 2003). However, no studies look at strategies meant to expand the differentiated use of functional language during small group peer interaction. Functional analysis will be useful in illustrating how student oral language production can expand in response to language-focused differentiated instruction.

Summary

The existing literature provides empirical support and a clear argument for differentiated instruction focused on increasing complexity and functional language use in linguistically diverse classrooms. While there is no clear picture of how to support the differentiated language development in linguistically diverse classrooms, learners appear to benefit from instructional supports that consider home language backgrounds and language proficiency levels. Additionally, strategies to expand students' linguistic complexity may provide opportunities for growth as opposed to a primary focus on accuracy. Complexity measures, therefore, can provide researchers with data that illustrate the more subtle changes that occur in students' language development as they grow in their use of lexical, syntactical and semantic features. Functional language analysis, as well, provides tools and a theoretical framework for analyzing students' changing use of language to meet ideational and interpersonal goals during content instruction. Taken together, the body of research reviewed here support this study in its attempt to describe how a shift in classroom participant structures and linguistic scaffolds afford or constrain the expansion of linguistically diverse students' linguistic repertoires during academic instruction.

CHAPTER 3: METHODOLOGY

This study draws on interactional sociolinguistics to explore language-focused differentiated instruction in a TWI classroom. In this chapter, I outline the methodology used to conduct this study. I first describe the three distinct phases of the design-based research (DBR) methodology used for the study. I then provide relevant details about the setting and the participants. Additionally, I outline the pedagogical design that was used to differentiate language instruction for immersion learners. Finally, I outline the data collection procedures and the data analysis process.

Design-Based Research

Although there are many interpretations of what DBR entails (Bannan-Ritland, 2003; Bowler & Large, 2008; Brown, 1992; Cobb, Confrey, DiSessa, Lehrer, & Schauble; 2003; Collective, 2003; Ihle, 2011; Mehan, 2008; Sandoval, 2013; Wang & Hannafin, 2005), there is general agreement that DBR is committed to both improving local educational practice *and* generating theories of teaching and learning. DBR is "an approach with certain commitments" (Sandoval, 2014, p. 18), including improving local practice through innovative methods, understanding how these improvements work in specific contexts, and generating meaningful theory. Therefore, DBR is simultaneously concerned with instructional design, educational research, and classroom practice (Bannan-Ritland, 2003). The simultaneous nature of focusing on all three concerns differentiates DBR from other forms of educational research. Researchers, in collaboration with practitioners, review the literature, formatively evaluate innovative instructional designs, collect and analyze data using quantitative and qualitative methods, and participate in theory generation (Wang & Hannafin, 2005).

Researchers using interactional sociolinguistics have used DBR as a methodology to explore how moment-to-moment interactions can improve student learning in context. Mehan (2008) has explained how his research has shifted from "describing educational inequality to attempting to create educational equality" (p. 78). He further described how his research shifted towards a DBR framework:

> Increasingly disillusioned with the separation of my policy and research work and
> my inability to convince people that inequality was produced in moment-to-

moment interaction, I turned my attention to documenting attempts by educators to construct social equality. (p. 78)

Wang and Hannafin (2005, p. 8) have outlined five distinct characteristics of DBR. According to the authors, DBR studies are "(1) pragmatic (useful both to practice and to theory development), (2) grounded (both in theory and in classroom contexts), (3) interactive/iterative/flexible (analysis-design-implementation-redesign in collaboration with practitioners), (4) integrative (applying mixed methods), and (5) contextual (connected to the classroom setting). DBR is an appropriate methodology for this study in that it addresses the following objectives: (1) I wanted to look at a specific problem that has *already* been identified in the literature. Additionally, I was not interested in only describing the problem but in exploring potential solutions to the problem. (2) I planned to include practitioners in the design of the study in order to bridge the research/practice gap. According to Anderson and Shattuck (2012):

> The partnership in a design-based study recognizes that teachers are usually too busy and often ill trained to conduct rigorous research. Likewise, the researcher often is not knowledgeable of the complexities of the culture, technology, objectives, and politics of an operating educational system to effectively create and measure the impact of an intervention. (p. 17)

(3) I wanted to study potential improvements of local practice related to the problem identified in the context where it occurs (as opposed to in a "laboratory"). Researchers have argued that DBR is particularly appropriate for classroom contexts since it is well suited to, "realities that are plural and unknown" (Maxcy, 2003). DBR studies are designed to both explore local learning challenges and contribute to theory development all within a classroom context.

Three Phases of Study

DBR typically includes three phases in which the researcher (in collaboration with the classroom teacher) iteratively investigates, describes, and supports instructional designs (improvements on local practice) that occur in the classroom (Bannan-Ritland, 2003). For this study, all three phases were implemented collaboratively between the classroom teacher and myself.

Phase 1: Informed exploration. Included in this phase was an assessment of the current situation, a review of the literature, and documentation of the target audience and stakeholder (teachers and principal) perceptions. Instructional decisions that are implemented in Phase 2 are informed by Phase 1 activities (Bannan-Ritland, 2003). According to Anderson and Shattuck (2012):

> The creation [of the study] begins with an accurate assessment of the local context; is informed by relevant literature, theory, and practice from other contexts; and is designed specifically to overcome some problem or create an improvement in local practice (p. 16)

Phase 2: Enactment of improvement on local practice. In this stage, direction for the research grew out of the data. Instead of relying on one "treatment," DBR incorporates various iterations of instructional changes implemented by the teacher. The enactment period may consist of various design-cycles.

Phase 3: Evaluation. The final stage of DBR consisted of local and broad theory development. The study answered the questions, "How well did specific instructional supports meet the goals of the teacher and focal students?" (local theory development) and, "How could this be adopted in the larger community?" (broad theory development).

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Study Setting

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District Overview

The study was conducted in a large, urban school district in a Midwestern U.S. state. The district is one of the largest in the state and has more than 37,000 students preK to 12th grade (Table 3.1). Seventy-eight percent of students are students of color and 72% in the district are eligible for free and reduced price lunch (FRPL) a common measure of poverty. According to the website, the district is the most linguistically diverse in the state with over 125 languages and approximately 35% English learners (the highest number in the state). The district is also know for its support of immersion programs with seven (out of 40) elementary schools offering immersion instruction in Spanish, French, Hmong and Mandarin. The Spanish Immersion School is the oldest immersion program in the district (and also in the state) (Fortune, 2001).

The district has worked to decrease the achievement gap and increase racial equity throughout the school system (Principal, personal communication, October 2,

2014). According to the website, their racial equity policy includes specific goals for family, student and community engagement; leadership; and teaching and learning. The district has employed external services (Pacific Educational Group) to work with principals and teachers on improving educational equity in the district. The achievement goals for 2014-2015, the year of the study, also included increasing reading achievement for all students and focusing on improving oral language production for early childhood students (Principal, personal communication, October 2, 2014).

School Overview

The school began as a magnet school in 1986 (Fortune, 2001) with primarily EHL students learning Spanish in a one-way immersion model. Over the years the percentage of SHL students has increased and many classrooms now resemble those in a two-way immersion model. However, the school does not self-identify as a two-way immersion school and often adapts instead the unique label, "urban immersion," implying that the one-way/two-way categories may not apply to this particular context (Principal, personal communication, October 2, 2014). The school allows for open enrollment and offers the district curriculum in a 90/10 Spanish immersion model. All students begin to learn in Spanish for 90% of instructional time during kindergarten and (10% in English). This percentage shifts to 70/30% (Spanish/English) by 3rd grade and 50/50% by fifth grade. English learners (EL) receive pull out instruction from an EL teacher. Some students are also pulled out for Spanish language support starting in 2nd grade (Special Education Teacher, personal communication, October 2, 2014).

The Spanish Immersion School mirrors the district in the percentage of White[2] and Black students (Table 3.1). However, the school has a much larger percentage of Hispanic students (48%) and lower percentage of Asian students (2%) than the district. Additionally 23% of students in the school receive EL services and 6% of students at the school receive special education (SpEd) services. A surprising 68% of students receiving Special Education services at the school are Hispanic as compared to 10% at the state level and 15% in the district.

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[2] The racial labels (White, not of Hispanic origin; Black, not of Hispanic origin; Hispanic; Asian/Pacific Islander; American Indian/Alaskan Native) are taken from the state department of education terminology. In order to maintain consistency throughout the study, the same labels are used throughout the study. Despite the problematic nature of racial categorization, it is important to this study that the racial diversity and differentiated educational outcomes are discussed.

Table 3.1

Student Demographics in the District, School, and Classroom

Student Demographic Information	District* (2014 - 2015)		Immersion School* (2014 - 2015)		3rd Grade Classroom** (2014-2015)	
	N	%	N	%	N	%
American Indian/Alaskan Native	692	2	8	1	0	0
Hispanic	5,274	14	347	48	10	37
Black, not of Hispanic Origin	11,458	30	163	23	8	30
Asian/Pacific Islander	11,947	32	11	2	0	0
White, not of Hispanic Origin	8,494	22	185	26	9	33
Total Student Population	37,865	100	664	100	27	100
Receiving English Language Learning Support	13,070	35	165	23	6	22
Eligible for Free or Reduced Price Lunch	27,379	72	403	56	--	--
Receiving Special Education Services	5,988	16	45	6	1	--
Hispanic students receiving Special Education Services		15		68	1	--

*Source: State Department of Education (SDE) Website
**Source: Classroom data supplied by teachers

There is a waitlist for enrollment at the Spanish Immersion School (Principal, personal communication, October 2, 2014). Parents at the school attend informational meetings before kindergarten to receive information about the vision and mission behind the school's immersion model. On the first day of school, parents can be seen at the school waiting for their children's buses to drop off students so they can greet their children. The fairly even mix of White, Hispanic and Black students is unique in the district and in the state overall (MDE, 2014). Since the school allows for open enrollment, many of the students are bused in from around the city. The busses appear to be racially segregated based on the part of the city serviced. Less than 19% of the White students at the school receive FRPL while over 60% of Hispanic and Black students participate in FRPL programs (MDE, 2014).

School standardized test data. Appendix A presents cross-sectional 3rd, 4th, and 5th grade Math and Reading assessments at the state, district and school levels for the 2-13-2014 school year. As the table shows, students in all demographics (and for most subjects and years) at the Spanish Immersion School perform better than the district average and the same or better than students in the state in the same demographic groups.

The FRPL rates at the school for Black, White and Hispanic students are generally lower than the state and district levels. Nevertheless, there is still a large achievement gap within the school in which 20 to 30% fewer Black and Hispanic students are proficient compared to White students in almost every achievement category; Black and Hispanic students do not achieve over 50% proficiency in most categories regardless of FRPL status. While this pattern is also true across the state and district, it is not surprising that the school improvement plans target eliminating the achievement gap. Appendix B presents three-year longitudinal data and confirms this trend. However, students at the Spanish Immersion School appear to be achieving academically at rates similar to or better than those in the district and state while also working towards developing bilingualism and biliteracy.

Classroom Overview

The study was conducted in one of three third grade classrooms in the Spanish Immersion School. It was recommended by the principal due to the teacher's interest in both equity and oral language proficiency. Table 3.2 shows the overall structure of the average daily schedule in the classroom. Because the study was focused on oral language proficiency, the teacher and I identified times when the students were involved in extended periods of Spanish language interaction with their peers. Morning meeting tended to be teacher-centered and consisted mainly of large group discussion. Special classes (art, music, computers) and science class were taught by outside teachers and were often not conducted in Spanish. Writer's workshop shifted between English and Spanish, so Reading and Math classes were identified as the best times for the study.

Table 3.2

Daily Schedule for 3rd Grade Immersion Classroom (2014-2015)

Schedule	Time	Activity
9:10 – 9:25	15 min.	♦ Breakfast
9:30 – 9:50	20 min.	❖ Morning Meeting
9:50 –10:40	50 min.	♦ Specials (PE, Music, Art, Computers)
10:40 –11:30	50 min.	♦ Writer's Workshop (Monday, Wednesday, Friday) ❖ Science (Tuesday, Thursday)
11:30 –12:25	55 min.	❖ Reading (Monday, Wednesday, Friday) ♦ Writer's Workshop (Monday, Wednesday, Friday)
12:25 – 12:45	20 min.	Recess

12:45 – 1:15	30 min.	Lunch and Bathroom Break
1:15 – 2:35	80 min.	❖ Math
2:35 – 3:50	75 min.	◆ Literacy Skills in Spanish/Health/Social Studies (Monday, Wednesday, Friday) and ◇ English Language Arts OR ◆ Reading (Tuesday, Thursday) ◆ Literacy Skills in Spanish/Health/Social Studies (Tuesday, Thursday)
3:50 – 4:00	10 min.	◆ Dismissal

Adapted from Fortune, 2001.   ❖Spanish Time ◆Spanish or English Time ◇English Time

Math games. Math (80 minutes per day) was identified as one of the most important classes due to the testing requirements and the need for differentiated instruction. While much of the math instruction was teacher-centered and large group, there were opportunities for interaction between and among peers. The "Math Games" time occurred after the initial introduction of the math topic, but towards the beginning of each Math period. After participating in a large group discussion while sitting at the front of the room, the students would be assigned a partner and math game by the teacher. The students would then collect the materials needed to play the game (e.g., dice, cards, manipulatives). The games were meant to reinforce a target math concept. All students played the same game, although often the teacher would work with a small group of students during this time. Math Games was a time when the students had an opportunity to interact extensively with each other in Spanish as they played the games. There were no specific language objectives for this time. (Table 3.3 outlines the overall participation structures during Math class.)

Reading class. Teachers also identified Reading (55 to 75 minutes per day) as an important subject for third grade students. The Special Education Teacher (personal communication, October 2, 2015) called Reading, "the basis of everything." At the beginning of this class, students would meet at the front of the room and the teacher would read a book aloud or conduct a shared reading activity with a big book. Afterwards, he would talk about a reading skill and facilitate a large group discussion about the targeted skill. Then, students would move to a different part of the room and work with a small group or a partner on a reading task. During this time, the students interacted with their peers in small groups or pairs. Students were directed to participate in a variety of activities, and the grade level team was experimenting with specific peer-

directed learning strategies that could be implemented during this time (Saenz, Fuchs, & Fuchs, 2005; Palincsar, Collins, Marano, Magnusson, 2000). In general, students would work with a partner or a small group of students to collaboratively read a leveled text and answer questions related to the reading. (Table 3.3 outlines the overall participation formats for Reading class.)

Table 3.3

Participation Structures for Math and Reading

Routine	Teacher Practice	Student Practice	Approx Time
MATH			
Students sit in the front of the room in rows. Teacher introduces the topic and assign certain students to review session (Spanish)	Teacher presents the math game and answers questions	Students listen and ask questions when called upon	5 to 10 minutes
Students play math games with a partner OR	Teacher supervises the game and provides individual feedback.	Students work with a partner to play a math game intended to reinforce key concepts	30 to 40 minutes
Students work with a small group with the classroom teacher	Teacher presents a topic targeted at the students' small group needs	Students listen and interact with the teacher when asked	30 to 40 minutes
Students sit in the front in rows to practice new problems	Teacher presents information and facilitates the discussion	Students listen and participate individually when called upon; certain students answer problems on the white board, occasional turn & talks are performed	10 to 20 minutes
Students work individually on their math notebook problems while the classroom teachers and support teacher circulate around the room	Teacher interacts with individually students on an as-needed basis	Students work silently or interact with the teacher	10 to 20 minutes
Students sit in the front of the room in rows to review the topic	Teacher facilitates a review of the learning target	Students share their answers on the board or with a partner	10 to 20 minutes
READING			
Students sit in the front of the room in rows. The teacher introduces the topic	Teacher presents information, models reading skills and facilitates the discussion	Students listen participate individually when called upon, occasional turn & talks	10 to 20 minutes
Students work in leveled groups on tasks OR	Teacher circulates, supervises and provides individual feedback	Students work with each other to read and answer questions in their reading notebooks	30 to 40 minutes
Students read individually OR	Teacher provides individual feedback	Students read quietly and occasionally talk with a neighbor	30 to 40 minutes
Students do guided reading with a small group with the classroom teacher or a support teacher	Teacher presents a topic targeted at the students' small group needs	Students listen and interact with the teacher when asked	30 to 40 minutes
Students sit in the front of	Teacher presents	Students listen and participate	10 to 20

| the room in a circle to share and transition | information and facilitates the discussion | individually when called upon, occasional turn & talks performed | minutes |

Research Participants

Principal and Support Teachers

Secondary participants in the study included the support teachers and the principal. In order to have an understanding of what the school expectations were for oral language proficiency and differentiation, I interviewed the principal of the school and four other teachers who worked in that particular classroom. Because these adults were in and out of the room throughout the study, it was important to include their thoughts regarding language-focused differentiated instruction. (Appendix C includes the dates and questions of each interview.) The four teachers included the special education teacher, the English learners teacher, the Spanish support teacher, and the curriculum coach for the school.

Principal. The principle, Helen[3] identified oral language proficiency as a district-wide goal, especially as it relates to reading and writing. She mentioned that most students could decode Spanish at a higher level than they could comprehend. She highlighted the importance of students being able to, "maintain complex sentence structures in your short-term working memory in order to understand them for the comprehension piece of reading ... it's not about teaching vocabulary ... It's really about working on complex sentence structure, and making kids able to have increasingly longer and more complex structures in their—under control" (Principal Interview, Oct. 2, 2014). The strategies for promoting oral language development mentioned were modeling, rehearsing, and whole group instruction. While there was no clear school-wide plan for meeting this goal, Helen mentioned that she hoped that language was becoming more complex as students progressed through school. Assessment data on Spanish oral language proficiency was collected from students at the beginning and end of each grade level. When asked about specific language goals for SHL students, the principal suggested that SHL students come in with a lack of academic language. "A lot of them come in with a high level of oral fluency, a Native-speaker perspective, but not

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[3] All names in the study are pseudonyms and every effort was made to maintain the participants' anonymity.

necessarily a lot of academic language ... the majority of our native Spanish speakers don't have a lot of academic Spanish support at home necessarily" (Principal Interview, Oct. 2, 2014). She suggested that SHL students needed appropriate resources at their proficiency level and support for English language development. EHL students, who lacked academic English and Spanish were not mentioned initially, but when questioned, Helen mentioned the importance of relationship building, culturally relevant pedagogy and helping students to see themselves as learners.

Special education teacher. Johanna the special education teacher, described her concern with the changing school demographics and teachers' lack of interest in differentiating instruction based on these changes. "I think the demographic of the school has changed and the expectation that these are going to be blond haired, blue eyed, smart kids coming in and that's not what we're getting anymore and teachers don't know how to differentiate for these kids. They're like, "Why are they here? Why are they in this school?"" (Special Education Teacher Interview, Oct. 2, 2014). While differentiation was identified as a major need, few specific adaptations were identified. Johanna mentioned "Razz Kids," an online literacy support program, and teacher collaboration as good strategies for differentiation.

English learners teacher. Maddie, the EL teacher, talked about the importance of oral language development. She explained that her work with students begins in November of Grade 2 when all students begin to receive some content instruction in English. She mentioned that she used to work on Spanish oral language and literacy skills as a way to promote linguistic transfer for SHL students. She mentioned that over the years she had seen that SHL students with strong home language skills did very well in acquiring English and students without strong oral Spanish skills struggled with both languages. However, she felt that she did not currently have time for Spanish language support and focused instead on developing only English proficiency for her students. She worked mainly with small pullout groups (meaning that students are removed from the classroom) and had students sort words to develop vocabulary knowledge with word families that are dissimilar from Spanish. Examples included word families with long and short vowels. Molly expressed her concern for students who, "don't really have a language" (English Learners Teacher Interview, Sep. 18, 2014), and wished that she

would be able to work with these students more in the classroom. The existance of "non-nons" or "semilinguals" (Skutnab-Kangas, 1981) has been widely critiqued (de Jong, 2011; Escamilla, et al., 2010) and researchers have pointed out that there is a lack of empirical evidence to support the existence of "semilingual" students (MacSwan, 2005; Ovando, et al., 2006; Paulston, 1982). Emergent bilingual students have been shown to have creative combinations of language features that allow bilingual children to meet their commuicative needs. However, school administrators and teachers often misunderstand this diversity of bilingual language skills and compare them to a monolingual norm. According to Beeman and Urow (2013) this monolingual bias, "has led educators to look at bilingual education as a set of either/or issues: students are dominant in either Spanish or English" (p. 8-9). The authors go on to argue that, "we should be careful about how we characterize children's langauge use and consider whether it is appropriate to make pedagogical decisions based on the notion of a dominant language" (p. 9). Nevertheless, many teachers at this school conceptualized the language of the simultaneous bilingual students (children who acquire two language before the age of 5) using deficit labels.

Spanish support teacher. Rosa, the Spanish support teacher, worked with EHL and SHL students struggling with Spanish reading. She mentioned that her SHL students most likely had a processing problem or their parents weren't able to support their children's learning. "The parents are working two or three jobs and they try. They do try but sometimes they don't have anybody that will help them get to work ... but we are all doing the best we can, right. It's public schooling" (Spanish Support Teacher Interview, Oct. 3, 2014). The EHL students struggling with Spanish reading were believed to be missing strategies, to not care, or to have family problems that carried over to school. In describing a particular Black EHL student, Rosa explained that, "[S]he can do it but she just doesn't care. She prefers just to joke around ... there is a family problem but I don't know what it is but her Spanish, she has so many discipline problems. The discipline had gotten in the way of her learning ever since first grade" (Spanish Support Teacher Interview, Oct. 3, 2014). Rosa also mentioned that often EHL students guessed at words based on the first letter and that it may be a compensation strategy related to the immersion experience. Rosa mentioned as well the changing school demographics.

"There are certain kids that are not meant for over here and we can't do that. We can't say this kid is not going to have success in this school and our hands are tied and that is, we're doing a disfavor to the kid, I believe" (Spanish Support Teacher Interview, Oct. 3, 2014). Rosa also worked with students in short pull out sessions. She worked on reading leveled books and reciting poems in Spanish with a small group of students. She targeted isolated skills such as word endings, plurals and rhyming words.

Curriculum coordinator. Mollie, the curriculum coordinator, talked extensively about the importance of oral language development. Echoing Maddie's deficit narrative around sequential bilingualism, she mentioned, "We know a lot of students don't come proficient in any language" (Curriculum Coordinator Interview, Oct. 7, 2014) and connected this issue to the limits of the one-way model. "It's hard with the one-way model because there's the assumption that you come in with a proficient language" (Curriculum Coordinator Interview, Oct. 7, 2014). However, she later clarified that SHL students do not need support for their home language development since the school is a one-way model. She expressed a strong belief that the students who do best in this school context were students with strong academic English when they entered school.

Support teachers and principal summary. Overall, the interviews provided background knowledge about school-level beliefs and "dominant narratives" (McCarty & Wyman, 2009) related to student language proficiency and the need for differentiation. Because from an interactional sociolinguistic perspective, learning occurs when teachers and students enact 'sense-making' practices through interaction, it was important to begin his study with a clear understanding of how teachers make sense of linguistic diversity and the need (or lack of need) for differentiated instruction. Teaching and the development of bilingualism from an interactional sociolinguistic perspective are seen as social practices rooted in choices that participants make during interaction (Heller, 2007). Therefore, it was important to understand interactional tools that were behind instructional decisions affecting practice. While oral language proficiency was a clear learning goal, there did not appear to be a specific awareness of the need for linguistically differentiated instruction. Students were discussed as a whole and particular groups (SHL, EHL, "no language") were discussed anecdotally in relation to how teachers can and should differentiate instruction and support oral language development. Based on the

DBR methodology, it was also important to understand the stakeholders' perspectives (Phase 1) before attempting to improve local practice (Phase 2).

Classroom Teacher

The classroom teacher, Brad, was a primary participant in this study. Brad had been working at the school for eight years. He studied Spanish in high school and college and spent a semester abroad in Spain. He mentioned not enjoying his own language-learning experiences in school. He was an advocate for the 90/10 immersion model and believed in strict separation of languages (Classroom Teacher Interview, September 26, 2014). He was on the equity committee at the school and was working towards his Master's degree in education at a local private college. We worked collaboratively throughout the study to create the design and explore the interaction patterns of the focal student (see Appendix D for a list of dates and questions from each interview/work session.)

Brad read extensively about best practice and was very well versed in a variety of immersion models (see Appendix E for an overview of articles shared with the teacher throughout the study). During our first interview, he mentioned having read a Tomlinson and McTighe (2006) article about differentiated unit planning the previous night. He identified specific language scaffolds that he would use in class including posters with target vocabulary and discussing language during the morning meeting. He also distributed small cubes as a reward for using Spanish throughout the day. These cubes could be exchanged for prizes when enough were collected. He structured free Spanish discussion times during morning meetings and would encourage the SHL students to interact with EHL students as a way to promote a bilingual learning environment. He mentioned that there were no guidelines for a Spanish language curriculum and so he used a list of learning goals from a different school. He also mentioned that there used to be an initiative to promote Spanish language objectives for each lesson and unit, but that it was no longer a school-wide mandate.

During our first interview , Brad and I discussed student Spanish language learning patterns in the classroom (Classroom Teacher Interview, Sep. 12, 2014). We jotted down a matrix in which students could be described according to Spanish and English oral language proficiency (Figure 3.1). A few SHL students in the EL program

fell into Quadrant A. They had strong oral Spanish and were working to develop English language oracy and literacy skills. Students in Quadrant B appeared to bring strong English oral and literacy skills from home and were developing strong Spanish language skills that assisted them in academic achievement at school. Students in Quadrant C were either EHL or SHL and had a combination of Spanish and English skills that were not clearly identifiable as strong monolingual skills in either language but instead knew "some concepts in one language and others in another" (Escamilla, et al., 2010, p. 5). Students in Quadrant D were mainly EHL students who had strong academic English skills, but their Spanish language skills were marked by inaccurate forms and limited vocabulary, typical immersion language features (Bild & Swain, 1989; Lyster & Mori, 2008; Potowski, 2007). Although this discussion between the two of us was not based on actual assessment data, it did provide a heuristic illustrating how we were initially co-conceptualizing linguistic diversity in the classroom (Figure 3.1).
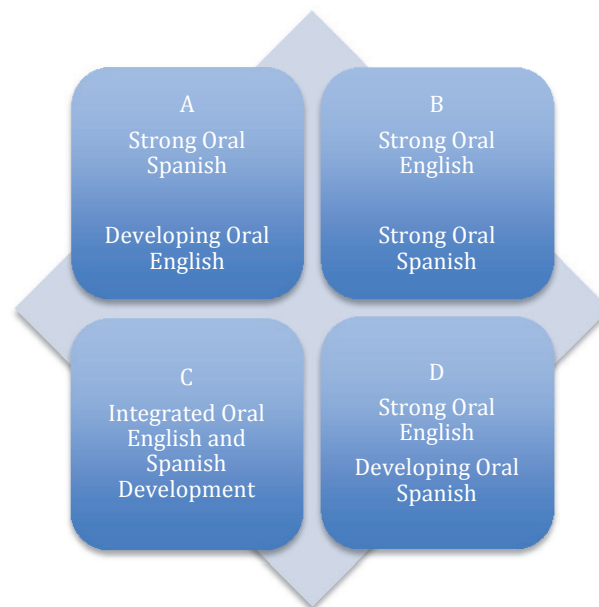
Figure 3.1 Characterization of student bilingual oral language proficiency patterns.

Students in the Classroom

The 24 students who agreed to participate in the study (out of 27 students total). Gender was evenly distributed; half (N=12) were female and half were male. Eight students were Hispanic, seven were Black and 9 were White. There was a slightly larger percentage of White and Black students than in the school in general, and a slightly lower

percentage of Hispanic students, but an equal percentage of students receiving EL services. Because I did not have access to the data on FRPL or test scores, I am not able to report whether the classroom mirrored overall trends in the school. Most students in this classroom were secondary participants of the study since I analyzed their discourse only when it was related to focal student interactions.

Because all students were in the process of developing bilingualism and biliteracy, I labeled them all as "type A" emergent bilingual students according to Valdés's emergent bilingual model for U.S. Spanish/English communities (1997, p. 114). These categories are helpful since the terms "native Spanish speaker" and "native English speaker" are too broad to adequately describe students working towards bilingualism and biliteracy in U.S. schools today. Bilingual type A, according to Valdés, includes students who have access to bilingual instruction in the U.S. and have acquired basic academic skills in Spanish and good academic skills in English. Additionally, these students are speakers of a contact variety of Spanish. Contact varieties of Spanish refer to varieties of Spanish that have undergone changes due to the contact between two or more languages (Klee & Lynch, 2009).

SHL students were further identified according to Silva Corvalán's (1991) generational categorization of attrition patterns of Spanish heritage language speakers. Silva-Corvalán (1991) identified distinct attrition patterns, adapted from Fishman (1964), for three generational groups in East Los Angeles. Based on her ethnographic study of fifty families, she determined "Group 1" to be individuals born in Mexico who had emigrated to the United States after age 11. These people had a native command of Spanish (with varying fluency in English). "Group 2" consisted of people from the community who had been born in the U.S. to parents from "Group 1" or who had emigrated before age 6 and had varying bilingual fluency in both Spanish and English. "Group 3" members were born in the U.S. and had at least one parent from "Group 2." There were three SHL students in the study who could be considered "Group 2" and four students from "Group 3." According to Silva Corvalán (1991) students with these characteristics may be at risk for language attrition or incomplete acquisition.

EHL students were assumed to be second language learners although all students in the classroom were actually working to developing additive bilingualism. L2 learners

in TWI programs have been shown to be at risk for developing "relatively poor" (Potowski, 2007, p. 207) Spanish language skills despite access to bilingual education.(Tedick & Young, 2014; Kovelman, Baker & Pettito, 2008; Stipek, Ryan & Alarco, 2001).

In order to identify the range of Spanish oral language proficiency levels in the class, I assessed each student who agreed to be in the study at the beginning of the year. (The assessment procedures are described in the data collection section of this chapter.) I used the overall proficiency levels for the entire class to help determine the choice of focal students. The Student Oral Proficiency Assessment (SOPA) developed by the Center for Applied Linguistics (CAL) and includes the categories of oral fluency, grammar, vocabulary, and listening comprehension. They levels ranged from 1 to 9 for each participating student. The range in Spanish oral language proficiency levels for the class varied from 2 to 8 in each category.

The Spanish and English reading group assignments are also presented in Appendix F in order to provide a rough approximation of the relative reading levels for each of the students. "Group 1" was the beginning reading group and "Group 5" was the most advanced. Math instruction was also leveled with students participating in either third or fourth grade curriculum. While most students received "3rd Grade" instruction, five students received "4th Grade" math instruction in another classroom.

It is interesting to note that all of the students in *both* the higher Spanish and higher English Reading groups (4 or 5) were EHL L2 learners. Also, students in Reading groups 3 or lower in *both* languages were either Hispanic or Black. All of the students in 4th grade math were EHL L2 learners and all but one were White.

Focal Students

Table 3.4 describes the overall characteristics of the five focal students of the study. Based on the overall demographics of the class, I identified five students as primary participants in the study to represent the racial diversity, home language background and Spanish oral language proficiency levels. I chose three girls and two boys, all who had begun the program in kindergarten. Two Hispanic students (one from reading Group 2 and one from Group 3) were chosen, two Black students (with differing proficiency levels), and one White student. Although all students in the classroom (who

agreed to be in the study) were recorded during classwork, only the focal students' discourse was analyzed in depth. Because I was not able to record every student throughout the study, it was important to identify particular students who would be representative of the overall patterns in the class.

Katrina. Katrina came from a home where Spanish was the primary language of communication. According to the classroom teacher, she preferred to speak Spanish in class and would often speak Spanish to EHL students or during English language arts. Katrina's Spanish oral language proficiency levels were between 8 and 9, the highest in the class. She was proficient in Spanish, but did not yet use more abstract features and extensive academic language. Despite Katrina's strong Spanish language proficiency, however, she was only in the intermediate Spanish reading group. She was in the second lowest English reading group and was labeled EL (at the "emerging" level). The EL teacher mentioned that Katrina was her top priority in terms of language support. Katrina could be considered as a "Group 2" emergent bilingual student because she was born in the U.S. and had at least one parent from "Group 1." Katrina was chosen as an example of a SHL student whose Spanish oral proficiency was not necessarily being developed and pushed sufficiently (Klee, 2011; Montrul & Potowski, 2007; Valdés, 1997).

Jessica. Jessica was a student who the classroom teacher identified as very competitive. She would often show her scores to other students to compare whose was highest. Her mother was White and her father was Black, and there were no Spanish-speaking relatives in her family. Jessica was in the highest Spanish reading group, and the second highest English reading group. Her Spanish oral proficiency levels ranged from 5 to 7, the highest in the classroom for EHL students and the highest among Black students. She was chosen as an example of an EHL student who was adapting well to the school's immersion model and developing both biliteracy and bilingualism (Bild & Swain, 1989; Lyster, 2007; Potowski, 2007).

Joel. Joel was a student who the classroom teacher identified as not being strong in either English or Spanish. At the beginning of the study, the teacher insisted that Joel did not come from a SHL family. The teacher mentioned that Joel's father lived in Mexico and his mother didn't speak Spanish. However, as the study progressed, the teacher reported that he heard the mother speaking Spanish on the phone to a customer at

her job and that she was a fluent Spanish speaker. Joel said that he mainly spoke English at home, but spoke Spanish with his father and sometimes with his siblings. Joel was in the lowest English reading group, identified as EL (between "emerging" and "developing") and in the intermediate Spanish reading group. His Spanish oral proficiency levels ranged from 5 to 6, still intermediate but lower than Jessica's. Joel could be considered as a "Group 3" emergent bilingual student since he was born in the U.S. and had at least one parent from "Group 2." Joel was chosen to representative a SHL student who does not have traditional linguistic proficiency in either language, but instead has a complex combination of linguistic repertoires that do not appear to be assisting his academic achievement or language acquisition (Klee, 2001; Montrul & Potowski, 2007; Valdés, 1997).

Abdul. Abdul was a student who the classroom teacher identified as a potential focal student for the study. Abdul was the only Black student in the highest English reading group and was one of only three students placed in the highest reading group for both languages. The teacher was interested in looking closely at his Spanish oral language usage, however, since his Spanish oral proficiency did not appear to be developing as quickly as his Spanish literacy skills. Abdul was a very jovial student with a playful personality. He appeared to be excited about learning, especially when the topic was of interest to him or when he had an opportunity to interact with his teachers. His Spanish language was often telegraphic (short, simplistic phrases) and he would often switch into English to get his message across. He mentioned that he lived with his mother and that he had no Spanish-speaking relatives. His Spanish oral language proficiency levels ranged from 4 to 6. He was chosen as an example of an EHL student who was adapting well to the immersion model in terms of developing biliteracy, but not as well when it came to his oral language proficiency (Bild & Swain, 1989; Lyster, 2007; Potowski, 2007).

Susan. Susan was a student that the teacher mentioned was very creative in her use of the Spanish language. She would mix forms and anglicize words often. At the beginning of the study, for example, she explained to me that "yo tiene" was present tense and "yo tengo" was past. She appeared to be very eager to learn Spanish, but her Spanish oral proficiency levels were mostly 4's (oral fluency, grammar, vocabulary) with

a 6 in listening comprehension, among the lowest scores for EHL students. She came from a home where English was used to communicate and she had no contact outside of school with the Spanish-speaking community. She was in the second highest English reading group (with Jessica), but in the intermediate Spanish reading group (with Katrina and Joel). Susan was chosen as an example of a student who was adapting well to the program yet developing relatively truncated functional oral language proficiency in the immersion language (Bild & Swain, 1989; Lyster, 2007; Potowski, 2007).

Table 3.4

Focal Student Profiles

Name	Ave. Age	Gender	Home Language	Racial Identity	SOPA OF, GR, VO, LC	Spanish Rdg (1 - 5)	English Rdg (1 - 5)	Math Level	EL?
Katrina	9	Female	Spanish	Hispanic	8, 8, 8, 9	3	2	3rd	Yes
Jessica	9	Female	English	Black/ White	6, 5, 5, 7	5	4	3rd	No
Joel	9	Male	Spanish; English	Hispanic	5, 5, 5, 6	3	1	3rd	Yes
Abdul	9	Male	English	Black	5, 5, 4, 6	5	5	3rd	No
Susan	9	Female	English	White	4, 4, 4, 6	3	4	3rd	No

Instructional Design: Conjecture Mapping

This study uses a DBR research methodology to explore language-focused differentiated instruction and its potential to promote oral language proficiency development for linguistically diverse learners. "Design research typically aims to create novel conditions for learning that theory suggests might be productive but are not common or well understood" (Collective, 2003 as cited in Sandoval, 2014, p. 22). According to Sandoval (2014), researchers using DBR should identify the beliefs behind their instructional designs in four areas: (a) conjecture, (b) embodiment, (c) mediation, and (d) outcomes. The belief about how the instructional design will improve local practice is called a "conjecture." Conjectures are, "hypotheses about how learning occurs and in what context" (Sandoval, 2014, p. 20). The "embodiment" entails the actual design (resources, activities, etc.) of the instructional practice used to meet the learning goal. The design is informed by theory about how learning may occur in a given environment. According to Sandoval (2014), researchers as designers have a responsibility to be as explicit as possible about literature foundations that led to decision-making regarding the

design. Additionally, researchers must clarify how the conjecture and embodiment will potentially lead to increased student learning, called "mediating processes." The mediating processes are the explanation of the specific ways in which the tools, tasks, participation structures, and discourse practices will potentially facilitate learning. Finally, the "outcomes" are the expected results of the instructional practices. The instructional design for this study (Figure 3.2) is described below according to Sandoval's DBR Conjecture Mapping framework.
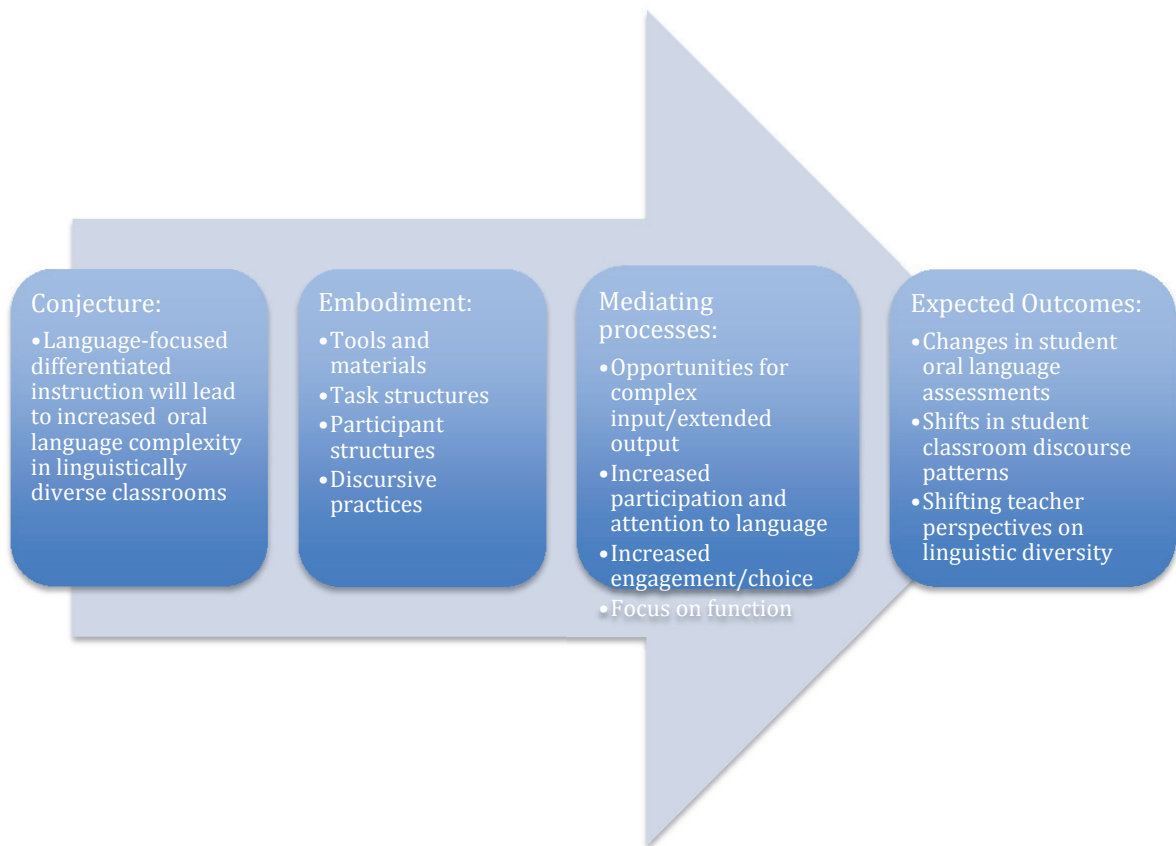
Figure 3.2 The conjecture map for current study. Adapted from Sandoval (2014, p. 21)

Conjecture

The design for this study was intended to improve students' Spanish oral language proficiency through language-focused differentiated instruction. Therefore, the conjecture would be that additional attention to language during content instruction using differentiated language supports will lead to increased student Spanish oral language complexity (for the focal students).

Embodiment

In order to facilitate increased Spanish oral language complexity, certain embodiments were created. These embodiments included tools and materials, task structures, participant structures, and discursive practices (Sandoval, 2014). The classroom teacher and I designed these embodiments to be used during specific niches in Math and Reading class. The differentiated language-focused scaffolds included: (1) function chart target sentences that increased in linguistic complexity (Dutro & Morran, 2002), (2) pre-modified partially scripted input (Pica, 1994; Fuchs & Fuchs, 1996), and (3) differentiated vanishing cloze language learning activities (Gibbons, 2009). (Language samples can be found in Appendix G).

Function chart target sentences and sentence stems. The tools included function chart target sentences that were differentiated according to difficulty. The classroom teacher and I co-constructed these sentences for use during Math Games and Guided/Paired Reading activities.

Tools and materials. The classroom teacher and I collaboratively design the tools and materials used during Math Games and Guided/Paired reading groups to promote Spanish oral language production. They were added to each day and were visually displayed on a poster at the front of the room and distributed on a handout for each student. The teacher modeled the sentence stems each day and asked for additional ideas. The target sentences were listed according to difficulty so that students could push themselves and teachers could suggest that students use a more complex sentence. Students also had a copy of the sentences with them as they interacted with their partner during the activity. They wrote a checkmark on their sheet when they used a particular sentence. At the end of the work session, students shared which new sentences they had used.

The target sentences were related to a particular function. For Math Games, the functions were "encouraging" and "reporting." Students were prompted to encourage their partner as they played the math game. For Paired Reading, the differentiated target sentences were related to "making requests," "making connections," "summarizing," and "reporting." According to Dutro and Morran (2002), "increasing competence in any language function obligates the speaker or writer to use increasingly complex sentence

structures" (p. 10). The target sentences were organized according to complexity and students were encouraged to expand their use throughout the activity. All students had the same tools in order to eliminate status issues and avoid positioning some students as less proficient during the interaction period of class. For example, the student receiving special education services received the same target sentences as all the other students, however he only used the first one or two options on the chart. Maintaining equal status was an important objective of the teacher. Although these functional target sentences were only applied during Math and Reading activities, theoretically they could be extended to other times as well. Dutro and Morran (2002) argue that once students learn to use target language structures, they can apply them to other contexts.

Task structures. Task structures refer to the organization of activities learners are expected to complete, "their goals, criteria, standards, and so on" (Sandoval, 2014, p. 22). The classroom teacher initially presented the function chart target sentences during large group instruction at the front of the room. Students sat in a circle and the teacher described each target sentences. Some of the language came from regional dialects and other options were idiomatic. However, each category had a number of options that increased in linguistic complexity. Students were allowed to suggest additional options to add to the poster charts at the front of the room. The teacher would facilitate a conversation about which sentences were their favorites, most useful, funniest, etc. There was an extended conversation related to language before the lesson would transition to a different focus.

Participant structures. Participant structures refer to how students and teachers, "are expected to participate in tasks, the roles and responsibilities participants take on" (Sandoval, 2014, p. 22). Students were expected to use the functional target sentences during the activity time in Math and Reading class with their partners and during opening and closing activities. They were also expected to attempt to use these functional sentence structures during other times of the day. The teacher was expected to use the language as well throughout the day and to push his own language. For example, since the teacher had not been observed using the subjunctive mood language structures, he set particular goals to use throughout the activities, especially when interacting with SHL students and more proficient L2 speakers.

Pre-modified partially scripted interaction. The target sentences described above (and presented in Appendix G) were combined into a pre-modified, partially scripted input sequence. In order to encourage students to use the differentiated target sentences, they were structured and displayed in the front of the room and on their sheets.

Tools and materials. The sheets were two different colors so that each student knew which role they were to play. During Math Games, student A played the game (rolling the dice or choosing a card) and student B encouraged his or her partner. Student B then thanked student A and afterwards, the students switched roles. During Paired Reading, student A was the "teacher" and asked student B to read. Student B read the selection and then student A asked him or her to make a connection or summarize. Afterwards, the roles were reversed. Although scripted interaction has been shown to produce less language growth than unscripted interaction (Mackey, 1999), it was hoped that the scripted interaction in conjunction with opportunities for unscripted use as well would push students to expand their linguistic complexity instead of using the same limited language that had become common practice during these activity times.

Task structures. During large group instruction, two students were chosen each day to model the sequence. After presenting the differentiated target sentence options, the students would perform the role-play in front of the class. The students received feedback from the teacher and then they would take a different colored paper with the partially scripted input and go to a pre-assigned place in the room. They would collect their materials (Math Games-dice, cards, counting bars; Paired Reading-leveled texts) and then begin to perform the activity. After performing the scripted sequences during their content activity, the students would return their materials and go back to the carpet with their sheets. They would report both on the content of the activity and their language use.

Participant structures. Students were expected to participate in their pairs while using the partially scripted input. They were also expected to use additional language to negotiate meaning and collaborate during the learning activity. In this way, students were expected to both make meaning and extend their functional language production.

Differentiated vanishing cloze language learning activities. These vanishing cloze tasks were differentiated in three different ways according to the students' proficiency levels and previous day's responses. Gibbons (2009) argues that vanishing

cloze activities are, "a useful way to have students repeat and practice key language associated with a topic or discipline" (p. 76). In general, language learning activities that are integrated into content instruction are most effective when they, "allow for learning about language in the context of using language ... because they focus students' attention on the language learning that is immediately relevant and useable, while maintaining an equal focus on meaning." (p. 64).

Tools and materials. The differentiated vanishing cloze sentences allowed students to report either their final scores (Math Games) or their connections and summaries (Paired Reading). The cloze activities were used as prompts for closing discussions as students reported back to the large group. Each cloze activity was collected and reviewed afterwards. Students received feedback on their writing and the classroom teacher and I gave feedback to students orally before the new day's activities.

Task structures. At the end of Math Games and Paired Reading times, the students were asked to fill in the differentiated vanishing cloze sentences with information from their activity and vocabulary from a differentiated word bank. Students took these sheets with them to the front of the room at the end of the activity. They could use them to report on their activity or they could use spontaneous language instead.

Participant structures. During this activity, students were expected to transfer the oral language produced during the paired activity into a short written report. In this way, students moved along the "mode continuum" (Gibbons, 2003) from oral language to teacher guided reporting and written language. The adults in the room also used the vanishing cloze activities as a pretext for individual conferencing with students about their oral language use. SHL students at the higher levels of proficiency were often encouraged by teachers to use more complex language and EHL students were also reminded to be careful with their fossilized forms. During large group closure, the differentiated vanishing cloze sheets were used as a way to facilitate oral reporting by individual students.

Discursive practices. Discursive practices are "ways of talking" (Sandoval, 2014, p. 22). Because this study was primarily concerned with discourse, the discursive practices were explicitly detailed. All of the scaffolds were related to a specific language function.

Mediating Processes

"Designs do not lead directly to outcomes" (Sandoval, 2014, p. 23). Sandoval (2014) clarifies that, "documenting mediating processes ... is required to connect aspects of a designed learning environment to observed outcomes of its use" (p. 23). In this study, it was hypothesized that increased student interaction and differentiated attention to language would lead to increased Spanish oral language complexity for focal students. By increasing opportunities for interaction with differentiated language supports, it was assumed that students would produce more complex and extended output (Angelova, Gunawardena & Volk, 2006; Dutro & Moran, 2002; Gibbons, 2006; Mercer, 1996; Schleppegrell, Achugar, & Orteíza, 2004; Webb, 2009). Additionally, the increased attention to language functions was assumed to increase complexity (Mohan & Becket, 2003; Zwiers, 2007, 2008). Structuring the tasks in an engaging manner at comprehensible input levels for individual students should allow for more participation and sense-making through the target language (Buchotz & Hall, 2005; Freeman, 2012; Lucas & Villegas, 2013; Ginsberg, 2005; Tomlinson & Imbeau, 2013). Finally, discursive patterns targeting language and content simultaneously should facilitate student language growth as they participate in interpersonal, ideational and textual experiences (Gibbons, 2006; Llinares & Morton, 2010).

Expected Outcomes

Conjectures, embodiments, and mediating processes are designed to produce intended outcomes. "Design research often aims to innovate not just processes of instruction but the kinds of outcomes desired from instruction" (Sandoval, 2014, p. 24). For the purposes of this study, focal student oral language complexity will be analyzed as an indicator of the outcomes of the improvement on local practice. Additionally, student interaction data during language-focused differentiated instruction will be explored in order to understand student responses and how they interact with interpersonal, ideational and textual discourse patterns. Finally, teacher discourse throughout the study will be analyzed to identify shifts in legitimation (Bucholtz & Hall, 2005; van Leeuwen, 2007) and practice.

Instructional Design and Differentiated Instruction

The instructional design was also conceptualized in accordance with Tomlinson's DI framework (Tomlinson & Imbeau, 2010) and included content, process, product, and affect objectives related to student readiness, interest, and background (Table 3.5).

Content

The instructional designs were meant to provide content at each student's readiness level in both Math (speed and complexity of the game as it was played) and Reading (text at appropriate reading level). Also, there was an attempt to adapt materials to particular students' interest levels both through language phrases and words (based on previous interest) and text choice (topics). Target language was chosen based on home languages and proficiencies (to push use), especially for SHL students, or identified fossilization patterns (EHL students). By leveling the target sentences, students had options they could chose from based on their readiness levels, interest and backgrounds.

Process

The partially scripted interactions were meant to allow for dynamic processes that both adapted to the students' readiness levels and promoted interest by facilitating positive relationship building. Interactions were structured to promote collaboration and encouragement. Since everyone had the same materials, readiness levels would ideally not become a barrier to participation during the process. The process was also designed to assure that more proficient students were challenged and that their language complexity was pushed during interaction and large group reporting activities.

Product

The differentiated vanishing cloze activities were meant to provide a structured process for students to transfer oral language to written forms and receive feedback. They were of interest particularly to SHL students through the performance of an expert role. Specific fossilized forms could be addressed through individual feedback while simultaneously pushing more proficient students' language through providing options such as non-cognate word choices.

Affect

The focus on collaboration and encouragement throughout each instructional design was meant to encourage positive positioning of proficiency and decrease negative

consequences to student status. Particular phrases (chido, ni modo, qué lástima) also were meant to be fun and create community. By increasing a sense of fun and safety, it was hoped that students would participate more, especially students who appeared to value relationship building. The vanishing cloze activities were also meant to provide scaffolding for the oral reporting that took place during large group discussions, thereby hopefully increasing participation and student investment.

Table 3.5

Overview of Instructional Designs Aligned to Tomlinson's DI Framework (2013)

	Readiness (language level)	Interest	Learning Profile
Content	Reading: Leveled texts based on reading proficiency Math: Access to math vocabulary (word bank) Differentiated sentence stems organized by complexity level	Reading: Readings for pairs chosen based on interest Math: Games changed to avoid tediousness Sentences and scripts include student-chosen language	Phrases from different geographical varieties Teacher language targeted above some students' language levels Conference with EHL students about fossilized language
Process	Partially scripted interactions allow for access, structure and creativity	Encouragement function promotes relationship-building	Partially scripted interactions/vanishing cloze include target language for different proficiency levels
Product	Vanishing cloze allows for scaffolded reporting, assessment at student's level	SHL students were able to assist and take on expert positions	Scaffolded reporting allowed for participation was at appropriate challenge level
Affect	Differentiated sentence stems allowed for more interaction Encouragement function led to relationship building and partnering	Student engagement through innovative phrases and words (cheveré, chido, padre)	Conference to motivate them to "push" language (SHL) Recognize SHL cultural knowledge (tamales, language expertise)

Data Collection

Duration and Data Sources

Data collection took place for 15 weeks between September and December of 2014. However, there were a number of activities related to data collection that occurred prior to the official start of the data collection process. Once data collection started, there were three distinct DBR phases in which I completed data collection activities. During each phase, I kept field notes and recorded teacher and student discourse during assessments, interviews and classroom interaction. The pre-data collection and data collection process is described below and is summarized in Table 3.6.

Pre-study data collection. Approximately a year prior to the official start of the study, I met with the principal of the school site to get her input as to what research topics would be of interest and aligned to the school's needs. She recommended that I observe the new instructional approach being used in kindergarten and to read about the achievement gap in the school, district and state. I began to volunteer in a kindergarten classroom one or two days per week. This activity continued for the fall semester of 2013.

In March of 2014, I met again with the principal to explain my specific proposed goals for the study. At this point, my goals were focused on oral language proficiency development and differentiated instruction with an eye towards equity. She agreed to the study and provided a letter of support for me to use when applying for the district's human subjects approval. At this point, the principal recommended a specific third grade classroom teacher as a potential collaborator. I contacted this teacher and received his support for the study. I shared an article with him about DBR (Mehan, 2008) and began to write the research proposal. In May of 2014, my proposal was approved. At that time, I applied for human subjects approval from the school district and then from the University's of Minnesota Internal Review Board (IRB).

Human subjects approval. The school district's Office of Accountability, Research, Evaluation and Assessment approved the study in August of 2014. The university approved the study as exempt from review in September of 2014 (See Appendix H). At that point, I collected assent and consent forms (Appendix I) and began to collect data at the school site. Table 3.6 outlines the data collection process that I completed for the duration of the study.

Recording equipment. As part of data collection process, I used digital video and audio recorders to collect data during the initial SOPA and audio recorders to collect classroom discourse samples during instruction and for the interviews. I met with a University technology specialist to choose the recorder that would most likely provide me with the data I needed for the study. The technology specialist recommended using high quality recorders that could be placed close to the students as they interacted. She did not recommend using lapel microphones because the wireless technology was intrusive and not as high quality as the actual recorder. I purchased two ZOOM recorders, one audio

and one that could be either a video or audio recorder. Both recorders were placed between students during the Student Oral Proficiency Assessment (SOPA) and next to teachers and students during interviews or beside focal students during classroom interaction.

Table 3.6

Overview of Data Collection Process

Pre-Study July 2013 - September 2014

(1) Meet with Principal to discuss research objectives relevant to the school (Tuesday, July 9, 2013)	(2) Volunteer in kindergarten classroom 1 to 2 times per week for 1 to 4 hours (August - December, 2013)	(3) Meet with Principal to clarify new research focus (Wed., March 5, 2014)	(4) Meet with potential classroom teacher identified by Principal (Wed., March 26, 2014)	(5) IRB received from Saint Paul Public Schools (Tuesday, Aug. 5, 2014)	(6) IRB received from University of Minnesota (Thursday, September 4, 2014)

Study September 2014 - December 2014

Data Collection Techniques	August	September	October	November	December
SOPA Assessment in Spanish (Recorded and transcribed)	Consultation with CAL regarding SOPA Assessment	Initial SOPA assessment administered			Final SOPA assessment administered
Observations (Field Notes, Research Memos)		Observations and whole class during Writing, Math and Reading	Targeted observations of focal students during Reading and Math	Targeted observations of focal students during Math and Reading	Targeted observations of focal students during Reading
Whole group, small group and pair interactions recorded	Audio and video recorders purchased and tested	Recordings of whole group interactions: Writing, Reading and Math	Recordings of focal student interactions: Reading and Math	Recordings of focal student interactions: Math and Reading (DI)	Recordings of focal student interactions: Reading (DI)
Focal student interviews					Focal students interviewed
Principal and support teacher background interviews		EL 30 minute interview	Principal, SpEd, SS and CC 30-minute interviews		
Classroom teacher interviews		One 45-minute interview	Two 1-hour interviews	Two 1-hour interviews	Two one-hour interviews

Data Sources and Design-Based Research

DBR studies begin with an analysis of the current local needs based on practitioner input. This need is explored through a review of the literature and an analysis of the current reality through interviews with stakeholders and observations of the phenomena to be studied. Phase 1, "informed exploration," leads to initial theory development that provides the structure for Phase 2, "enactment." The enactment stage is meant to implement an improvement on local practice that theoretically should increase student learning or lead to a solution of the identified problem. The instructional design is collaboratively created and implemented by the researcher together with the classroom teacher. Based on the initial review of data collection during Phase 2, adaptations may be made to the design. At a certain point, however, the study moves into Phase 3, "evaluation." At this point, the research team analyzes the impact of the design on the local context and then theorizes how these local findings would transfer to a different context. At this point, the findings may be published in order to add to the theoretical knowledge base around the original research topic. Each phase in this process is now described in relation to this particular study (Appendix J).

Phase 1: Informed exploration. During Phase 1, I completed an oral language proficiency assessment (SOPA) with each participating student in the classroom. I also interviewed the classroom teacher, four support teachers (SpEd, EL, SS, CC), and the principal. I kept field notes and recorded student interaction data during Math and Reading instruction during the second half of Phase 1. These recordings occurred during Math Games and Guiding Reading activities. Each data collection activity is described below.

Initial oral language proficiency assessment. In order to have a clear idea of where the class range was in terms of Spanish oral language proficiency, I completed an assessment at the beginning of the study. CAL developed the SOPA rating scale based on guidelines from the American Council on the Teaching of Foreign Languages (ACTFL). The SOPA (Thompson, Boyson & Rhodes, 2006) has a specific version meant to evaluate the language of immersion students for students in Grades 2-8. The SOPA measures oral language produced during a structured interaction between a trained assessor and a pair of students matched according to approximate proficiency levels.

The assessment occurred in Spanish. I had completed the online SOPA training during July of 2014 provided by CAL. As the assessor, I guided the students through a series of tasks with the intention of allowing them to produce their highest levels of proficiency (Thompson, et al., 2006). The scores are based on the ACTFL Proficiency Guidelines for Speaking and Listening (2009) and include nine levels[4]. Some 50/50% immersion programs have identified JIM (5) as a third grade/fourth grade goal for EHL students in a Spanish immersion program (Oregon Department of Education, 2015). However, other researchers, looking at 90/10% immersion models have identified JIH (6) as an appropriate goal for students by the end of 2nd grade (Fortune & Tedick, in press).

The 25-minute interviews took place during the first month of the study. I had previously completed a certificate course online through CAL in order to learn how to administer the assessment. All assessments were recorded using video and audio and then the recordings were transcribed using Systemic Analysis of Language Transcripts (SALT) transcription conventions (Miller et al., 2011). A representative from CAL and one of the assessment authors, Dr. Boyson, reviewed the SOPA assessment data and determined the levels for the four categories for each student. I present her assessment of the range for each student in each category in Appendix K.

Observations. During the months of September and October, I observed the students during their classroom activities. I took field notes on teacher and student interaction throughout the day (Patton, 2002). I also created digital research memos about my thoughts regarding oral language proficiency, supports for Spanish language use, and differentiated student interaction. I focused on providing "rich description" of the events observed in the classroom (Patton, 2002).

Recordings of classroom interactions. During Phase 1, I recorded 40 sessions of focal student interaction during Math Games and Group Reading activities. Student discourse was recorded during peer and small group interactions for three reasons: 1) student interaction occurs more frequently during small group work than during teacher-

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[4]:The sublevels are Junior Novice-Low (JNL=1), Junior Novice-Mid (JNM=2), Junior Novice-High (JNH=3), Junior Intermediate-Low (JIL=4), Junior Intermediate- Mid (JIM=5), Junior Intermediate-High (JIH=6), Junior Advanced-Low (JAL=7), Junior Advanced-Mid (JAM=8), and Junior Advanced-High (JAH=9) (Boyson et al., 2006, p. 252)

fronted, whole class instruction (Cohen, 1994; Cohen & Lotan, 1995; Fortune, 2001; Lapkin & Swain, 2000; Sugarman, 2012; Tedick & Young, 2014; Webb, 2009), many of the strategies for student-centered differentiation and peer directed learning have been developed with small group work in mind (Gibbons, 2006; Kumpulainen & Muntean, 1999; Schleppelgrell, 2013), and DBR recommends that researchers identify niches of opportunity in teachers' already established routines in order to better bridge the research/practice divide (Brown, 1992). It is more likely that new practices will be implemented if they are designed to be integrated into current practice than if they disrupt existing practices, routines and procedures.

Because I was recording "naturally" occurring interaction during the targeted times that I had identified (Math Games and Group/Paired Reading), the groupings varied. Therefore, I had a different number of recordings for each student during Phase 1. Each of the five focal students was recorded for at least two times during Math Games and two times during Group Reading. However, some students were recorded for up to four times in one of the subject areas. These interactions were recorded and transcribed. Table 3.7 includes the dates and times of each recording.

Table 3.7

Timing of Phase 1 Focal Student Observations and Recordings 1

Date/Subject	Abdul	Jessica	Joel	Katrina	Susan
Phase 1: (Informed Exploration)					
1. Oct. 9 Math				X	X
2. Oct. 10 Math	X				
3. Oct. 13 Math			X		
4. Reading			X		
5. Oct. 14 Reading	X				
6. Oct. 22 Math	X	X			X
7. Reading		X		X	
8. Oct. 23 Math			X	X	
9. Reading			X	X	
10. Oct. 24 Math	X				X
11. Oct. 27 Math				X	X
12. Oct. 28 Math			X		
13. Oct. 29 Math			X		
14. Reading			X	X	X
15. Oct. 30 Math		X			
16. Reading			X		X
17. Nov. 4 Math	X			X	
18. Reading	X	X		X	
19. Nov. 5 Math				X	
20. Reading		X			
21. Nov. 6 Math		X			X
22. Reading	X				
23. Nov. 7 Reading			X		
24. Nov. 12 Reading		X			

Principal and support teacher interviews. During Phase 1, I interviewed the principal and four support teachers about their thoughts regarding Spanish oral language proficiency development and differentiated instruction. Each interview lasted between 20 and 45 minutes. The semi-structured interviews were transcribed (Wortham, 2006) and analyzed to identify reocurring patterns in the data. Interview exchanges were coded based on themes and topics related to student oral language development overall, the participant's perceptions regarding the need for differentiation at the school overall, and strategies used by teachers in this particular classroom.

Classroom teacher interviews. The classroom teacher, Brad Roberts, was interviewed three times during Phase 1 of the study. During the first interview, the classroom teacher and I discussed his students' Spanish oral language production and how he promoted language acquisition during content instruction. We also discussed strategies for differentiation and ideas for additional ways to provide language-focused differentiated instruction.

After the initial four weeks of Phase 1, I met with the classroom teacher for a second interview to (a) choose five focal students who represented the range of home language backgrounds and Spanish linguistic diversity, (b) decide upon a subject area in which to conduct DI activities, and (c) identify a time during this subject area when the students would be engaged in peer interaction. During the third interview, we discussed potential improvements on local practice and brainstormed actual instructional design materials. During each meeting, we briefly discussed articles that we had both read. Each interview was recorded and transcribed (Wortham, 2006).

Phase 2: Enactment of improvement on local practice. During Phase 2, I collected data in a similar manner to Phase 1. However, Phase 2 was more structured since the classroom teacher was implementing our improvement on local practice. Each method for recording data is described below.

Observations. I observed 16 Phase 2 pair work sessions and took field notes including rich descriptions of student interactions. I also kept notes that clarified which students were in each group and if any students were absent or participating in alternative groups.

Recordings of classroom interactions. During phase 2, I recorded 20 pair work sessions, two per focal student in Math and two per focal student in Reading (Table 3.8). The recordings were meant to collect discourse related to how focal students responded to language-focused DI designed by the teacher and researcher.

Table 3.8

Timing of Phase 2 Focal Student Observations and Recordings

Date/Subject	Abdul	Jessica	Joel	Katrina	Susan
Phase 2: (Enactment)					
Iteration 1					
Nov. 14 Math			X		
Nov. 17 Math				X	
Nov. 18 Math		X			
Nov. 19 Math	X				X
Nov. 20 Math				X	
Nov. 24 Math			X		
Nov. 25 Math		X			
Nov. 26 Math	X				X
Phase 2 (Enactment)					
Iteration 2					
Dec. 2 Reading				X	X
Dec. 3 Reading			X		
Dec. 4 Reading		X			
Dec. 5 Reading	X				
Dec. 8 Reading				X	X
Dec. 9 Reading			X		
Dec. 10 Reading		X			
Dec. 11 Reading	X				

Classroom teacher interviews. During Phase 2, I interviewed the classroom teacher three times. The interviews began as semi-structured (Patton, 2002), but became more like work sessions as we discussed how our designs could be improved and how specific focal students were responding to the language-focused differentiated instruction. During the fourth interview, the classroom teacher and I discussed how to improve the Math language supports. During the fifth and sixth interviews, we talked about language supports for Reading class. Each interview was recorded and transcribed (Wortham, 2006).

Phase 3: Evaluation. At the end of the 15-week data collection period, I interviewed the classroom teacher for a final exit interview. I also completed an end-of-study oral proficiency assessment of focal students and interviewed each focal student about their experiences during the study. Data collection is described below.

Final oral language proficiency assessment. In order to assess the language complexity of the focal students, I completed a post-study SOPA in December. These post-study SOPA interviews were not sent to Dr. Boyson for evaluation and scoring, but instead were used to analyze focal students' language complexity at the end of the study

as compared to their language complexity in the Pre-study SOPA assessment. The assessments were transcribed using SALT transcription conventions (Miller et al., 2011).

Focal student interviews. Focal students were interviewed at the end of the study. They were asked about their experiences during the study and their overall perceptions of language proficiency and bilingualism. The interviews were approximately 15 minutes in length and were recorded and transcribed (Wortham, 2006). Students could choose to answer questions in English or Spanish and most interviews were completed in both languages.

Final classroom teacher interview. At the end of the study, I completed a final interview with the classroom teacher. This interview was semi-structured and was meant to elicit his thoughts on the overall successes and challenges of the instructional design and its ability to promote differentiated language development among the focal students. The interview was recorded and transcribed (Wortham, 2006).

Data Analysis

The research questions for this study are outlined in Table 3.9 along with corresponding data sources and analysis procedures. All three questions were explored with interactional sociolinguistic discourse analysis. Throughout the duration of the study, data were collected and at the end of the study these data were analyzed to identify student outcomes in relation to the oral language proficiency goals (RQ1), students' reactions during the study (RQ2), and the teacher's shifting conceptualization of DI (RQ3). The first research question included specific analysis of complexity using the interactional data from the SOPA samples. The second research question was answered using methods from systemic functional linguistics (SFL) to analyze classroom interaction data, and the third question was explored using qualitative coding and interpretive discourse analysis of interactional research data.

Table 3.9

Research Questions, Data Sources, Methods of Collection, and Analysis

Research Question	Sources	Method of Data Collection	Data Analysis Procedures
(1) How does the quantity and quality of individual immersion students' Spanish oral language production change in response to linguistically differentiated instruction?	Transcripts of student interactions	Record interaction data Transcribe data	Qualitative coding and analysis
	Observational field notes	Record observations during classroom interactions	Qualitative coding and analysis
	Research memos	Record daily researcher reflections	Qualitative coding and analysis
	SOPA Assessment Data	Collect oral proficiency assessment data for all students initially and for focal students at the end of the study	SALT language complexity analysis
(2) How do students having different home language backgrounds and Spanish language proficiency levels respond linguistically and relationally to differentiation strategies?	Transcripts of student interaction	Record interaction data Transcribe data	Qualitative coding and analysis using SFL framework
	Observational field notes	Record observations during classroom interactions	Qualitative coding and analysis
	Research memos	Record daily researcher reflections	Qualitative coding and analysis
(3) How does an immersion teacher's characterization of linguistic diversity and differentiation change during a period of intensive reflective work related to models of differentiation? How is this change reflected in their practice?	Teacher interviews	Record and transcribe interviews	Qualitative coding and analysis
	Observational field notes	Record observations during classroom interactions	Qualitative coding and analysis
	Research memos	Record daily researcher reflections	Qualitative coding and analysis

Transcription

This study used interactional sociolinguistic discourse analysis to explore the assertion that language-focused differentiated instruction is needed in order to meet the needs of linguistically diverse learners. Transcription decisions, therefore, were important to the quality of the data analysis. SOPA data was transcribed using SALT conventions (Miller et al., 2011). These well-established conventions can be found in Appendix L. Because a quantitative analysis was used to identify concrete measures of language complexity, a consistent transcription process was needed to answer this research question.

Student interaction data as well as all interview data was transcribed using conventions adapted from Wortham (2006), an appropriate convention for analyzing classroom interaction data. These conventions allow for contextual details to be included in the transcription (see Appendix M) but do not overwhelm with description. The transcribed data was then analyzed using multiple measures described below.

SOPA Language Complexity Analysis

Complexity analysis is appropriate for this study because a goal was to increase the quantity and quality of student language production during interaction with classmates. The supports aimed to increase productive oral language complexity for linguistically diverse students.

SOPA transcriptions were analyzed using SALT software (Miller, et al, 2011). SALT was developed in 2010 to systematically analyze student English and Spanish language samples. SALT software has been used in studies that explore Spanish oral language proficiency levels in children (Miller, Heilmann, Nockerts, Iglesias, Fabiano, & Francis, 2006). Transcription conventions (Appendix L) were carefully followed in order to assure systematic consistency during analysis. The transcripts were reread multiple times while listening to the language samples for each focal student. Punctuation, for example was important to include so that it could be used to determine the number of statements, questions, abandoned utterances, unintelligible and partly intelligible utterances, utterances with mazes (filled pauses, false starts, repetitions, and revisions), pauses, and omissions. (Many of these analyses were not used for the current study, however.)

The samples were specifically analyzed to determine the amount of coordination in each utterance to account for potential language growth of less proficient students (Norris & Ortega, 2009). All student samples were also analyzed to determine the pre- and post-subordination index, which has been argued to be an appropriate assessment to explore growth of intermediate speakers (Norris & Ortega, 2009). The mean length of utterance in words (MLUw) and number of different words (NDW) were also assessed in the pre- and post-study SOPAs as a way to examine language growth of more proficient students. These measures were chosen in order to compare the potential change of students' language at a variety of proficiency levels. It has been argued (Halliday and

Matthiessen, 1999; Norris & Ortega, 2009) that in order to look closely at complexity, a variety of specific measures must be assessed to account for language growth of a range of language proficiency levels. The following quantitative analyses were completed for the focal students' discourse along with a detailed qualitative description of the language use patterns found in the quantitative analysis.

Coordination. Coordination was marked in the transcription [e.g., CI:1] in order to calculate the amount of coordination that was occurring in each focal students' language during the initial and final SOPA assessment. Each time that a main clause was connected via a coordinating conjunction (and, but, or, so, for, yet, nor) this was counted as one example of coordination. Statements that were connected logically (semantically) and connected by a coordinating conjunction (e.g., and) were coded as instances of coordination (Bardovi-Harlig, 1992). It is argued that at beginning proficiency levels, increased coordination is a sign of initial language development (Halliday and Matthiessen, 1999; Norris & Ortega, 2009). Utterances that were incomplete or unintelligible were excluded from the coordination analysis in accordance to the SALT guidelines and to not penalize a speaker for eliminating a portion of a main clause, common practice in oral language.

Subordination index. Clauses contain subjects (noun phrases) and predicates (verb phrases) that are connected by subordination conjunctions (e.g., when, after, before, even if, etc.) are counted in the subordination index (SI). The SI (e.g., SI:2) accounts for the number of clauses tied to each main clause. "Subordination is a measure of syntactic complexity which produces a ratio of the total number of clauses to the total number of C-units (or modified C-units for samples of bilingual Spanish/English speakers)" (Miller et al., 2011, p. 261). This measure has traditionally been used to account for complexity development (Loban, 1963). At intermediate levels of proficiency, an increased subordination index may indicate language growth (Halliday & Matthiessen, 1999; Norris & Ortega, 2009). Transcriptions were divided into modified C-units (MC-units) and the subordination index was determined for pre- and post- focal students' language production based on the SOPA language samples. (For a more complete description of SI coding, refer to Miller et al., 2011).

Mean length of utterances in words. Language samples were also analyzed according to the mean length of words (MLUw) per utterance. Although mean length is at times calculated using morphemes, for this study only MLUw was used. "The calculation of MLU in morphemes (MLUm) requires that specific bound morphemes ... be counted" (Miller et al., 2011, p. 103). The process lacks consistency in Spanish since roots are not always maintained, particularly in conjugated verbs. Therefore, most researchers looking at Spanish language acquisition have looked at MLUw and ignored MLU in morphemes (MLUm). For this study, only MLUw was coded and analyzed. MLUw has been shown to be valuable in assessing students' developing language complexity (Parker & Brorson, 2005), especially at higher levels of proficiency (Halliday & Matthiessen, 1999; Norris & Ortega, 2009.

Number of different words. Because morphemes are not coded for Spanish language use, Miller et al. (2011) recommend using the "root identification" convention to prevent inflated number of different words (NDW) measures. The software checked for inflected verb conjugations and inserted the appropriate root word into the NDW calculation. However, I added a special word code to account for different tense, person, and aspect conjugations so that this could be calculated as well.

Functional Analysis of Classroom Interaction Data

Student interaction data during Math Games and Group/Paired Reading activities was analyzed using SFL tools as adapted from Gibbons (2006). "Episode summaries" were identified for focal student interactions during Phase 1 and Phase 2 of the study. According to Gibbons (2006, p. 95) episode summaries have a particular participant structure that changes before and after, a unique physical seating arrangement, and a specific purpose. Both the Math Games episodes and the Group/Paired Reading activities fit these three criteria. Both activities were clearly sandwiched between large group discussions, the students physically moved from the front of the room to other areas in the classroom and back again, and there was a specific purpose (i.e., to play a game related to math objectives; to read a story with a partner and answer questions about the reading). The analysis of student interaction data during these episodes is intended to be, "an analysis of the kinds of meanings created within and across the episodes" (Gibbons, 2006, p. 96).

Transcriptions from classroom interaction data were reread numerous times in order to complete initial coding (Saldaña, 2012). Student utterances were analyzed for evidence of how they simultaneously achieved three overarching SFL language functions: interpersonal, ideational, and textual (Gibbons, 2006; Halliday & Hassan, 1985). Transcriptions were analyzed to identify not only what students could say, but instead "what they could do with language" (Gibbons, 2006, p. 81). Utterances were coded for themes related to "knowledge constructed about content" (Math or Reading), "knowledge constructed about language," and "knowledge constructed about how to be a peer" (adapted from Gibbons, 2006). These three themes were aligned to Halliday and Hasan's (1985) ideational, textual, and interpersonal metafunctions. The themes were then further analyzed to identify shifts in focal students' performances and language use throughout Phase 1 and Phase 2 of the study.

Teacher Interview Data

All of the teacher interview data collected were analyzed using qualitative sociolinguistic discourse analysis methods. The interviews were transcribed and analyzed using critical discourse analysis (CDA), specifically van Leeuwen's concepts of legitimation and modality (Bucholtz & Hall, 2005; Slembrouck, 2011; van Leeuwen, 2007). Constructs of legitimation explore the speaker's characterizations of "Why should we do this?" and "Why should we do this in this way?" (van Leeuwen, 2007; p. 93).

Interactional discourse analysis looks at language in action in order to understand how ideologies manifest themselves in society, including the connection between discourse (text) and social practice (van Leeuwen, 2007; Wood, 2014). Through the analysis of interview data, researchers can analyze the relationship between language, ideology, and society. In this study, van Leeuwen's concept of legitimation (2007) was used as a tool to ascertain the ways that teachers justified their instructional decision-making regarding linguistic diversity and differentiated instruction. Four key aspects of van Leeuwen's concept of legitimation were considered (as described in Leckie, Kaplan & Rubinstein-Ávila, 2013).

- Authorization—legitimation by reference to tradition, custom or law.
- Moral Evaluation—legitimation by reference to value systems.

- Rationalization—legitimation by reference to the goals and uses of institutionalized social action.

- Mythopoesis—legitimation through narratives whose outcomes include rewards and punishments. (p. 166)

Initial coding (Saldaña, 2013) identified instances of teacher utterances related to language, linguistic diversity, oral language proficiency and differentiation. "Focused" coding (Saldaña, 2013) was then used to explore the most salient categories in the data corpus (Charmaz, 2006) in relation to the four concepts taken from legitimation theory. Evidence and counterevidence were recorded in order to support interpretations regarding the shift in conceptualization of language-focused differentiated instruction in a TWI classroom.

CHAPTER 4: FINDINGS FROM COMPLEXITY ANALYSIS

In this chapter I describe the focal student linguistic complexity produced during the oral language proficiency assessment (SOPA) conducted at the beginning of the study (September) and end of the study (December). The focal students represent the range of home languages and Spanish oral language proficiencies in the classroom. I explore the changes in their linguistic complexity individually as well as in relation to the other focal students and to a comparison group of same-aged bilingual peers in an English-only program. The findings in this chapter are meant to answer the research question, "How does the quantity and quality of individual immersion students' Spanish oral language production change in response to linguistically differentiated instruction?"

In this section, each focal students' language is described in relation to accepted measures of linguistic complexity: subordination index (SI), number of different words used (NDW), and mean length of utterance in words (MLUw). Complexity measures will be described for each student according to (a) each phase of the study (Phase 1: SOPA #1; Phase 3: SOPA #2), (b) the task type within the SOPA, (c) in relation to the other focal students, and (d) as compared to "normally developing bilingual peers" (provided by the SALT database). The SALT comparison students were 475 bilingual students of similar ages (within 6 months) from Texas and California who were labeled " typically developing native speakers").[5] However, these students were not participating in bilingual educational programs, but instead were learning in English-only classrooms and were identified due to their participation in pullout ESL classes.

Coordination will also be discussed as will the number and type of different errors for each focal student. Finally, types of verb conjugations and range of words from a variety of syntactic categories will also be explored for each focal student.

Linguistic Complexity Overview: Initial and Final SOPA

In order to explore the linguistic complexity of the focal students in the study, I administered an oral language proficiency assessment at the beginning and end of the study. This assessment was transcribed and analyzed using discourse analysis software,

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[5] "The English language learners (ELLs) were drawn from public school ELL classrooms in urban Texas (Houston and Austin), border Texas (Brownsville), and urban California (Los Angeles)" (Miller, et al., 2011, p. 213).

Systemic Analysis of Language Transcriptions (SALT). Complexity measures traditionally used to study student language growth were determined and the results presented here (see Chapter 3 for a description of how the complexity measures are determined). The complexity findings are first presented overall, according to individual assessment tasks, and then for each specific focal student. Since the students are emerging bilinguals, both English and Spanish words were counted in the NDW, however, English words were labeled "code switches" (CS) and are presented in the data. Utterances that were over 50% in Spanish were included in the database and utterances that were less than 50% in Spanish were not as recommended by the SALT clinician's guide (Miller, et al., 2011).

The SOPA includes five separate tasks used to assess oral language proficiency. Task 1 elicits short descriptions of concrete items such as animals or objects found in the home. Task 2 is a question and answer task about familiar items such as family members or pets. Task 3 is related to an academic topic and is meant to facilitate student use of more academic language. Task 4 is a story retell and Task 5 is related to an abstract concept such as, "What would you change if you were the principal of this school." Evaluators are meant to stop the assessment at the point that students have apparently shown the limits of their proficiency. The following overall results are presented for tasks 2-4. Task 1 contained mainly one-word answers so was eliminated from the analysis since it did not represent the full range of ability of each student. Task 5 was eliminated for the overview since one of the focal students did not complete this task. Nevertheless, results for Task 5 are presented below for each focal student who did complete Task 5.

Table 4.1 shows the comparison between the initial and final SOPA assessments. Overall, students increased their SI and their MLUw. NDW, however did not consistently increase for each focal student. Results are described in greater detail below.

Table 4.1

Linguistic Complexity Measures of Focal Students (Tasks 2-4)

Focal student	Initial NDW	Final NDW	% change	Initial SI	Final SI	% change	Initial MLUw	Final MLUw	% change
Katrina (SHL)	249	247	-1	1.24	1.41	14	5.54	5.95	7
Jessica (EHL)	155	166	7	1.11	1.49	34	5.21	7.95	53
Joel (SHL)	139	156	12	1.06	1.22	15	5.17	5.60	8
Abdul (EHL)	134*	128*	-5	1.03	1.25	21	4.16	5.35	29
Susan (EHL)	138	128	-7	1.04	1.43	38	4.80	6.73	40

*Abdul's initial NDW include 20 CS (words in English) while the final SOPA only contained 5 CS.

Number of Different Words

The analysis of complexity measures (Figure 4.1) shows the great range of linguistic resources found in the classroom. While Katrina's NDW (249) is more than twice what the other students produced in three of the four measures, her NDW did not increase in the final SOPA (247). EHL students with lower ends of proficiency (Abdul and Susan) also did not produce an increase in their NDW. Both the EHL (Jessica) and SHL/EHL (Joel) students at intermediate levels did show an increase in their NDW. However, perhaps the most striking aspect of this measurement is the clear difference in NDW between the more proficient students and other focal students.
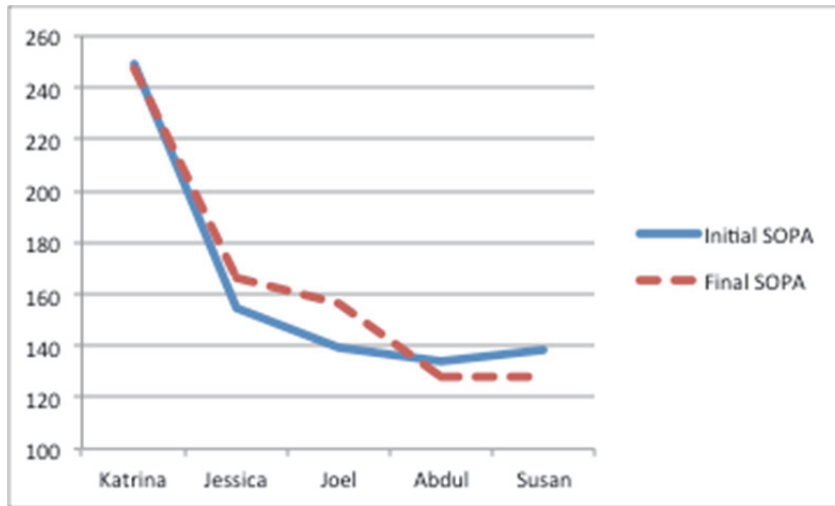
Figure 4.1. NDW measurement comparisons by focal student and SOPA

Subordination Index

All students increased in their SI (Figure 4.2). While both SHL students showed a smaller percentage increase (Katrina 14%; Joel 15%), all of the EHL students had over a 20% increase in their SI. Susan (38%) and Jessica (34%) saw the largest relative increases while Abdul saw a 21% increase in his SI. Because SI has been presented as an appropriate measure for children acquiring language at an intermediate proficiency level (Norris & Ortega, 2009), it is particularly important to the analysis of their language development. Interestingly, Jessica (EHL) surpassed Katrina's SI in the final SOPA assessment. This could imply that Jessica was responding particularly well to the increased attention to language in the class or that the language supports were still insufficient to support Katrina's academic language growth given her more abudant language resources.
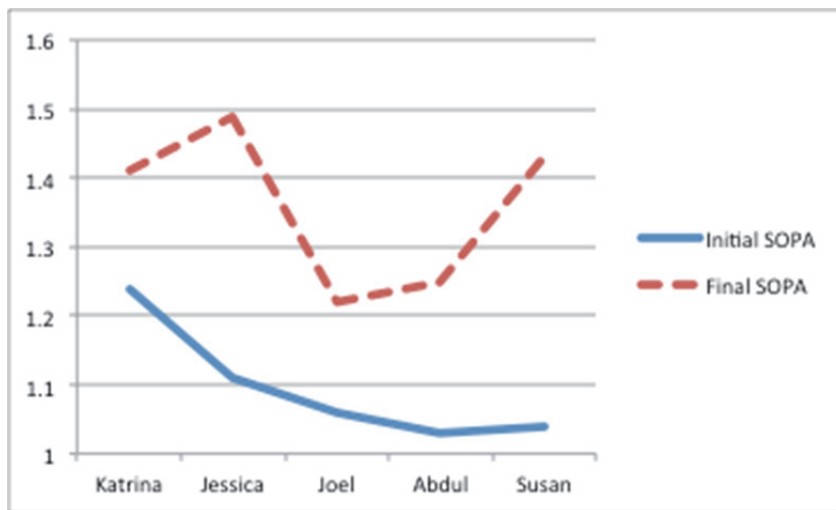
Figure 4.2. SI measurement comparisons by focal student and SOPA

Mean Length of Utterance in Words

Results for MLUw (Figure 4.3) mirrored the SI findings and may imply that all students improved in their linguistic complexity by some measurement. However, again the SHL students saw smaller gains than the EHL focal students; Katrina had a 7% increase and Joel an 8% increase. EHL saw greater gains with Jessica improving by 53%, Susan by 40% and Abdul by 29%. SHL students experienced a smaller increase in MLUw regardless of their proficiency levels. Also, Jessica, again, surpassed Katrina in this linguistic proficiency measurement by the end of the study. Individual focal student

language patterns will be described more indepth in order to illustrate more clearly how their language may have shifted during the study.
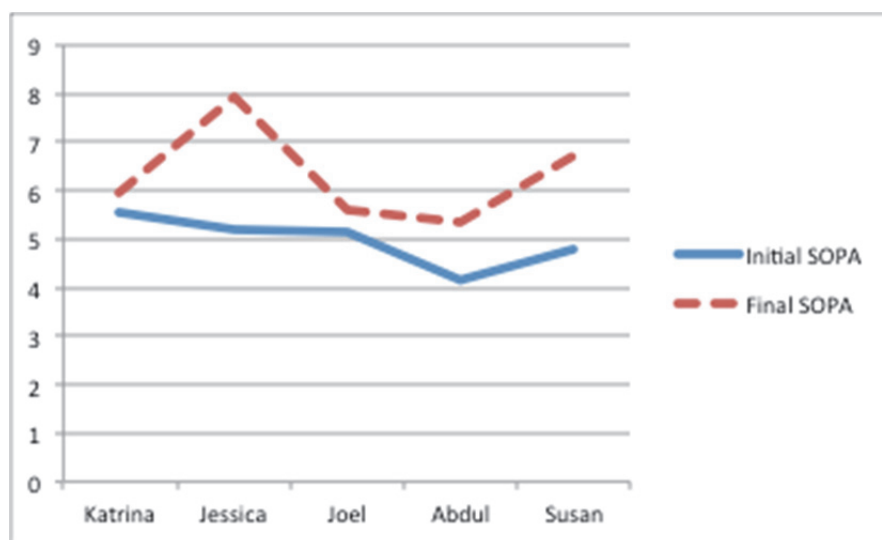
Figure 4.3. MLUw measurement comparisons by focal student and SOPA

Katrina's Initial and Final Linguistic Complexity Measures

Katrina represented an emergent bilingual student with high levels of proficiency in Spanish and developing English proficiency. She was one of two students in the classroom who had the highest oral proficiency levels according to the CAL evaluation criteria as outlined in the SOPA rubric. Despite her high comparitive proficiency levels, her Spanish language development may not be progressing enough to promote acquisition, but merely preventing language loss. Emergent bilingual students are at risk for incomplete acquisition or language attrition despite access to bilingual education (Montrul & Potowski, 2007; Potowski, 2007a). Additionally, social levels of Spanish tend to be more developed than academic Spanish for some students with profiles similar to Katrina's (Colombí, 2009; Padilla & Gonzalez, 2001).

In both the initial and final SOPA transcripts, Katrina spoke fluently and openly about each topic presented. However, as can be seen in Table 4.2, the complexity of her language use differed according to the task presented. By looking at the complexity measures according to task type, it appears that for all task types Katrina experienced an increase in SI and MLUw. However, the academic task (Task 3) saw a decrease in NDW together with a large increase in MLUw and SI. This may imply that academic language

99

was affected in particular ways specific to that task. In other words, it may be that in her academic language she uses fewer words to describe topics that are cognitively challenging but with limited shared context (Cummins, 1979). For example, she may use more utterances to describe her weekend activities than to describe the life cycle of a butterfly perhaps due to a higher comfort level with informal interaction in Spanish.

Katrina's social language was complex and lexically diverse during the social task (Task 2) during both SOPA assessments. To describe her love of school, she used utterances using a variety of verb forms and vocabulary such as:

> es más mejor porque si estuvieras en tu casa no tuvieras amigos y por eso es más divertido estando en la escuela porque aquí aprendes y haces más cosas como haces matemáticas.
>
> (*it is better because if you were in your house, you wouldn't have any friends and that is why it is more fun to be in school because here you learn and you do more things like math*.)

However, during the academic language tasks, she exhibited less lexical specificity and tended to use short sentences and phrases.

> intercambio de base diez es como si pones muchos como están como de <u>eso</u> y más de <u>esto</u> y uno de <u>estos</u> y entonces también unos cuadraditos.
>
> (*exchange of ten is when if you put a lot like there like this and more like that and one of these and then also some little cubes*.)

When asked to describe very concrete experiences that she participated in daily, Katrina chose to use very general, not specific language to communicate the content of her message. You can see in Table 4.2 that there was a large drop in Katrina's NDW for the academic task between the intial and final SOPA.

Table 4.2

Katrina's Linguistic Complexity According to Assessment Task

SOPA Task	Initial NDW	Final NDW	% change	Initial SI	Final SI	% change	Initial MLUw	Final MLUw	% change
Task 2 (social)	124	149	20	1.16	1.39	20	4.96	5.43	9
Task 3 (academic)	101	64	-37	1.38	1.82	32	6.17	9.92	61
Task 4 (retell)	118	116	-2	1.21	1.33	10	5.76	5.86	2
Task 5 (abstract)	72	88	22	1.50	1.76	17	6.87	8.00	16

Jessica's Initial and Final Linguistic Complexity Measures

Jessica represented an emergent bilingual student with high levels of proficiency in Spanish and high levels of proficiency in English as well. Jessica had the second highest oral proficiency scores among the EHL students. While some EHL students are at risk for developing limited target language proficiency (Montrul & Potowski, 2007; Potowski, 2007a; Tedick & Young, 2014), Jessica appeared to be on track for continued Spanish language proficiency development. Her language could be described as "non-native like" but functionally proficient in that she could express herself and participate in all learning activities, but would not be mistaken for a native speaker. In both SOPA transcripts, Jessica used fewer different words than the most proficient SHL students, but had similar syntactic complexity as measured by SI and MLUw .

Table 4.3 shows Jessica's use of complexity measures for each assessment task. Jessica used more complex language than her EHL classmates, and she also improved greatly during the period of the study. The MLUw increased for every task and the SI improved for Tasks 2-4. The NDW also increased slightly for each task but decreased for the story retell (Task 4). Although the NDW was not affected regardless of task type, Jessica's linguistic complexity appears to have increased greatly overall as measured by SI and MLUw. Jessica used more academic language when describing the math game such as:

primero necesitas decenas y unidades y centenas.

(first you need groups of tens, single units, and groups of 100.)

However, during the social tasks, she had much simpler vocabulary than Katrina.

algunas veces me gusta hablar en español y escribir en español y todo <u>eso</u>.

(*sometimes I like to speak in Spanish and write in Spanish and all that.*)

While both Katrina and Jessica had a number of strengths in their Spanish oral language proficiency, Jessica was in the highest Spanish reading group while Katrina was in the middle one. This might imply that Katrina's strong social language was not facilitating her acadmic langauge development that in turn did not promote her literacy skills.

Table 4.3

Jessica's Linguistic Complexity According to Assessment Task

SOPA Task	Initial NDW	Final NDW	% change	Initial SI	Final SI	% change	Initial MLUw	Final MLUw	% change
Task 2 (social)	68	69	1	1.23	1.53	24	5.17	8.00	55
Task 3 (academic)	67	64	-5	1.05	1.42	35	4.00	8.40	110
Task 4 (retell)	69	87	26	1.11	1.50	35	6.43	7.67	19
Task 5 (abstract)	42	24	-14	1.50	1.55	3	13.25	7.58	43

Joel's Initial and Final Linguistic Complexity Measures

Joel, the SHL/EHL focal student in the study, also came from a bilingual home, but reported using more English than Spanish with his family. He received support services for his English language development and only had intermediate proficiency levels in Spanish. While his mother was a fluent Spanish and English speaker (as reported by the classroom teachers), she usually spoke to Joel in English. Joel represents an emergent bilingual student with a potential for greater development of his Spanish language proficiency and who may be at risk for language attrition (Montrul & Potowski, 2007; Potowski, 2007a). Potowski (2007a) has noted that some SHL students actually appear linguistically to be similar to EHL students in terms of language proficiency. Researchers have also noted that additional emotional factors can affect students from Spanish-speaking communities during the language acquisition process (Abdi, 2011; Bolger & Zapata, 2011; Carreira & Potowski, 2011; Chevalier, 2004; Montrul, 2010, 2011; Suarez, 2002).

Joel did not complete Task 5 during the initial SOPA since it was determined that he and his partner had reached their limit in expressive language and so, unfortunately, the initial interview was stopped after Task 4. However, he did complete Task 5 in the second SOPA. Table 4.4 shows Joel's linguistic complexity scores for each task type for both assessments. While Joel appeared to respond well to the language-focused differentiated instruction, his linguistic complexity did not expand as much as it did for most of the EHL students. The MLUw decreased slightly during Task 1 (social questions), but increased in the academic task and story retell. Similar to other students, Joel's NDW decreased during the academic task but increased during Tasks 2 (questions) and 4 (story retell). The SI increased for every task and was most apparent in Tasks 3 (academic) and 4 (story retell) in which Joel's language increased from 1.00 (the lowest score possible) to a level of minimal subordination (1.20 and 1.17 respectively). This indicates that for more complex tasks, Joel's language was expanding from simple one-clause utterances to slightly more complex discourse features with a variety of subordinate clauses.

In the initial SOPA assessment, Joel spoke with very short phrases but with some academic vocabulary.

> sí porque los insectos tienen. son los insectos. son muy pequeños y son. se pican. (yes. because the insects have. they are the insects. they are very small and they are. they sting.)

The classroom teacher had described him as EHL, partly due to his limited use of Spanish in class. By the final SOPA, however, he was eager to speak in Spanish and used much longer utterances to express his throughts. Although there were many irregular uses and conjugations when describing a math task, he was able to explain how to play the game.

> dices que tu es mi pareja y tu agarras un carta. yo agarro un carta y yo tu y yo y yo hazo así y yo sume estos tres y es trece y yo tengo trece y tu a los tuyos y tu tienes más y tu tienes todos los cartas.

(*say that you are my partner and you grab a card. I grab a card and I you ad I and I make this and I add these three and it's thirteen and I have thirteen and you have yours and you have more and you have all the cards*.)

While Joel's subordination did not increase extensively in these examples, you can see an increase in coordination.

Table 4.4

Joel's Linguistic Complexity According to Assessment Task

SOPA Task	Initial NDW	Final NDW	% change	Initial SI	Final SI	% change	Initial MLUw	Final MLUw	% change
Task 2 (social)	57	77	35	1.18	1.31	11	6.50	5.55	-15
Task 3 (academic)	33	27	-18	1.00	1.20	20	4.36	6.00	38
Task 4 (retell)	88	94	7	1.00	1.17	17	4.76	5.64	19
Task 5 (abstract)	--	17	--	--	1.50	--	--	5.75	--

Abdul's Initial and Final Linguistic Complexity Measures

Abdul, an EHL student with above average reading skills in both English and Spanish struggled to develop his Spanish oral language proficiency. He often switched to English and appeared to enjoy interacting with other students and teachers and so used whatever language or features of a language would add to the communicative value. He did not have exposure to Spanish outside of the immersion school, but he stated that he valued bilingualism.

Table 4.5 shows Abdul's linguistic complexity scores for each task type according to the initial and final SOPA transcripts. Abdul appeared to increase in his oral language proficiency as measured by complexity constructs. Although Abdul's NDW during the social task (Task 1) decreased greatly, an examination of the transcript shows that he included fewer words in English during the final assessment, which led to the decrease in NDW. At the beginning of the study, Abdul would use English to develop rapport, but at the end he appeared to attempt to build relationships in Spanish as well. Additionally, the SI for Task 5 decreased, however all other measures increased and may illustrate how Abdul was able to expand his language from extremely simplistic (3.33 words per

utterance in the social task, for example) to levels more in line with those of EHL students at his Spanish literacy levels. His language increased for all categories for the academic task (Task 3).

During the inital SOPA academic task, Abdul used short phrases and often asked how to say something in English, but was able to describe fairly complex topics in Spanish.

primero es un huevo. segundo es. yo olvidé la nombre en español. oruga!"
(*first it is an egg. second it is. I forgot the name in Spanish. caterpillar!*).

However, Abdul presented himself differently during the social tasks.
pero se morir. se fue down the drain.
(*but it to die. it went* down the drain.)

During the final SOPA, his social language appeared to have shifted dramatically. "y yo no me gusta que no a mi no me gusta que no puedes tener chicle." (*and I don't like that no, I don't like that you can't have gum*.) This shift could be due to many factors, incluing our closer relationship by the end of the study. However, the change in language use patterns could also imply a greater investment in Abdul's interpersonal Spanish use.

Table 4.5

Abdul's Linguistic Complexity According to Assessment Task

SOPA Task	Initial NDW	Final NDW	% change	Initial SI	Final SI	% change	Initial MLUw	Final MLUw	% change
Task 2 (social)	64	46	-28	1.04	1.36	31	3.33	4.33	30
Task 3 (academic)	39	42	8	1.00	1.40	40	5.00	6.90	38
Task 4 (retell)	65	83	28	1.07	1.17	9	4.66	5.51	18
Task 5 (abstract)	29	38	31	1.75	1.22	-30	7.50	8.00	7

Susan's Initial and Final Linguistic Complexity Measures

Susan, an EHL student with the lowest Spanish oral language proficiency levels of the focal students (according to the SOPA) appears to have responded well to the focus on language and saw an increase overall in her complexity measures. She seemed intrigued by the attention to language.

Table 4.6 shows Susan's linguistic complexity scores for each task type according to the initial and final SOPA transcripts. Susan had great swings in her complexity measures although overall she greatly improved her linguistic complexity according to the measures used for this study. While her NDW for the social task (Task 1) decreased a great amount, her SI and MLUw saw large increases. Although she used a smaller variety of words to express herself, she expanded her utterances both through subordination and the number of words. In the initial SOPA she used phrases for the social task such as,

yo quiero el tercer grado. puede hacer times.

(*I want third grade. it can be done* times.)

For the academic task, she used reptition such as,

está comiendo, comiendo, comiendo.

(it is eating, eating, eating.)

In her final SOPA assesment, she used more complex phrases such as,

porque no tienes diez necesita tomar tres unidades y tú tienes cien por lo tanto tu gánalo.

(*because you don't have ten you need to take three units and you have 100 therefore you win it.*)

Given her lower Spanish language proficiency level, it is interesting to note that her NDW measure almost doubled for the academic task, more than any other focal student's improvement. She also increased her SI in every category (from 1.00 in two tasks, the lowest possible score) and also increased her MLUw in every task type except Task 5, the abstract thinking task. Given Susan's eagerness to learn Spanish (and other languages), it appears that a continued attention to language may benefit her in terms of proficiency.

Table 4.6

Susan's Linguistic Complexity According to Assessment Task

SOPA Task	Initial NDW	Final NDW	% change	Initial SI	Final SI	% change	Initial MLUw	Final MLUw	% change
Task 2 (social)	83	55	-34	1.05	1.88	79	4.76	8.23	73
Task 3 (academic)	26	48	85	1.14	1.20	53	5.43	6.00	11
Task 4 (retell)	56	67	20	1.00	1.37	37	4.69	6.19	32
Task 5 (abstract)	29	29	0	1.00	1.50	50	6.60	6.00	-9

Focal Student Use of Coordination: Initial and Final SOPA

Some researchers recommend an analysis of levels of coordination in order to better assess changes in language proficiency for students at beginning levels of proficiency (Haliday, 1985; Norris & Ortega, 2009). Utterances that were connected with a semantically appropriate coordinating conjunction (and, but, or, so, for, yet, nor) were counted as two separate main clauses for the SI analysis, but were coded as "CI-2" in order to ascertain if students shifted their use of coordination throughout the time of the study and if there was a difference in coordination practices between focal students according to proficiency levels and home language backgrounds. Table 4.7 shows the totals of coordination for each focal student during the initial and final SOPA. While the levels remained fairly consistent for Joel, Jessica, and Katrina, there was indeed a large amount of fluctuation for Abdul and Susan. Abdul appears to have increased his use of coordination, which may indicate a shift from short, one-word answers and extensive codeswitching to an attempt at staying in the target language and expand his responses. Susan, on the other hand, who tended to invent words and syntactical structures, appears to have increased her accuracy and complexity, thereby decreasing her use of coordination (while increasing her use of subordination).

Table 4.7

Amount of Coordination for Focal Students: Initial and Final SOPA[6]

Amount of Coor.	Katrina Initial	Katrina Final	Jessica Initial	Jessica Final	Joel Initial	Joel Final	Abdul Initial	Abdul Final	Susan Initial	Susan Final
CI 2	11	11	9	3	8	5	2	9	9	4
CI 3	5	6	3	4	2	5	0	2	1	0
CI 4	0	1	1	0	0	2	1	0	0	0
CI 5	0	0	0	0	1	1	0	0	0	0
CI 6	1	0	0	0	0	0	0	0	0	0
CI 7	0	0	0	0	0	0	0	0	0	0
CI 8	0	0	0	1	0	0	1	0	0	0
Total	17	18	13	8	11	13	4	11	10	4

Error Types and Codeswitching Overview: Initial and Final SOPA

Although this study was focused on an analysis of focal students' language complexity, a number of students (particularly Joel and Susan) often sacrificed accuracy in an effort to express their ideas. There is a wealth of research analyzing the relationship between accuracy and complexity (Ellis & Barkhuizen, 2005; Larsen-Freeman & Long, 1991; Norris & Ortega, 2009) and many argue that students tend to decrease accuracy as they increase complexity and vice versa (Norris & Ortega, 2009). Table 4.8 shows the error rates for each focal student in the initial and final SOPA. While Katrina (with the highest oral proficiency levels of the focal students) had minimal errors, Jessica decreased slightly in the number of errors. Joel and Abdul, however, increased in number of errors, but at the same time greatly decreased their codeswitching. This could imply that they made an effort to remain in the target language and thereby increased the amount of errors as they expressed themselves in Spanish instead of English. Susan decreased slightly the number of errors and also decreased the amount of codeswitching. This may imply that she was more aware of her language use overall and, like Jessica, worked to increase accuracy while simultaneously decreasing use of English.

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[6] The calculation was made for tasks 2 to 4 in order to compare each focal students data and Joel did not complete the initial Task 5.

Table 4.8

Number of Initial and Final SOPA[7] Focal Student Errors/Code Switching

# of Errors and CS	Katrina Initial	Katrina Final	Jessica Initial	Jessica Final	Joel Initial	Joel Final	Abdul Initial	Abdul Final	Susan Initial	Susan Final
# of errors	2	2	12	7	8	21	11	13	19	15
# CS	1	3	9	6	16	8	20	5	6	4

Verb Tense/Form Overview: Initial SOPA

Another common complexity measure is the use of a variety of syntactical categories including verb tenses, moods and other forms (Norris & Ortega, 2009). The initial and final SOPA transcripts were coded to identify the students' use of tense, mood and the forms "gerund," "past participle," and "infinitive." Table 4.9 presents the number of times that the focal students used each form. Overall, the students increased their use of present tense and decreased their use of past tense. While Katrina used a range of verb forms, none of the other focal students made extensive use of forms other than present, past and infinitives. Commands, conditional and subjunctive forms were particularly absent. Susan never produced any conditional or subjunctive forms and used almost no future, commands, gerunds or participles. Jessica, Abdul and Joel didn't use any conditional and minimal subjunctive and command forms either. This may imply that future instruction could focus on these rarely-used verb forms.

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[7] The calculation was made for tasks 2 to 4 in order to compare each focal students data and Joel did not complete the initial Task 5.

Table 4.9
Verb Tense/Types Used by Focal Students During Initial and Final SOPA[8]

Verb Tenses and Types	Katrina Initial	Katrina Final	Jessica Initial	Jessica Final	Joel Initial	Joel Final	Abdul Initial	Abdul Final	Susan Initial	Susan Final
Present tense	89	105	25	66	42	51	48	51	39	51
Past tense	43	26	37	21	5	23	20	9	10	6
Future tense	3	8	3	5	5	3	5	7	0	1
Command	2	3	0	1	1	0	0	2	0	3
Conditional mood	5	10	0	2	0	0	0	0	0	0
Subjunctive mood	4	20	0	1	0	2	0	1	0	0
Gerund	4	11	3	10	13	8	1	6	2	1
Past Participle	7	4	1	1	0	0	5	0	1	0
Infinitive	22	27	14	21	6	12	17	23	4	6

Syntactic Categories Overview: Initial and Final SOPA

Table 4.10 provides an extensive look at additional syntactical categories and each focal student's use during the initial and final SOPA. It is interesting to note that there are numerous syntactical options that are not used by *any* of the focal students, including the most proficient SHL focal student. With a limited use of these linguistic forms, all of the students are at risk for incomplete acquisition. While the students used a number of forms repeatedly, the great majority of forms were never used during the language samples.

The increased use of the subordinating conjunction/relative pronoun "que," supports the assertion that most focal students did increase their language complexity through increased subordination. Additionally, Katrina frequently used particular forms (i.e., the conjunction "entonces," the personal non-reflexive pronouns "me" and "se") that were never incorporated into the less-proficient students' linguistic repertoires despite the fact that they were surely exposed to them repeatedly during peer interaction. By increasing attention to language, students may introduce more complex language into their linguistic repertoires and avoid the immersion "plateau effect" (Fortune & Tedick, in press; Hart, Lapkin, & Swain, 1991) that has been identified in immersion programs.

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[8] The calculation was made for tasks 2 to 5 to allow for a complete analysis of the focal students' entire discourse sample. Task 1 was excluded since most answers were one-word or short phrase responses to questions.

Summary

An analysis of the linguistic complexity features exhibited by focal students during the initial and final SOPA transcripts showed that in general the students did expand their use of more complex linguistic forms. The Spanish immersion program in which they participated appeared to provide students with more diverse vocabulary than SALT comparison group similar-aged bilingual peers in non-immersion programs, but only similar (Jessica) or less complex language forms as measured through the SI. Accuracy appears to have increased and code switching to have decreased in the final SOPA for focal students at lower levels of proficiency. Standardized word lists (see Table 4.10), however, showed the overall limited diversity of syntactical forms focal students used during both assessments.

Given the interactional aspects of the SOPA assessment, there are a number of factors that could have influenced the students' language choices. Also, since this is not a quasi-experimental study, it can be argued that the changes would have occurred with or without the language-focused differentiated instruction. Increased complexity could have simply occurred due to the students' greater ages and linguistic development throughout the fall semester of third grade. However, the measures presented in this chapter can provide a snapshot of the language that focal students used during different phases of the study. Nevertheless, an analysis of the classroom transcripts before and during the instructional design sequence will give us a better idea of the language that students tended to use with each other in the classroom. In Chapter 5, the classroom interaction data and student interview transcriptions will be analyzed in order to better understand how focal students used their language resources to enact their developing bilingual identities in general and how they specifically responded to the instruction designs used in the study.

Table 4.10

Standard Word Lists by Focal Student During Initial and Final SOPA[9]

Standard Word Lists	Katrina Initial	Katrina Final	Jessica Initial	Jessica Final	Joel Initial	Joel Final	Abdul Initial	Abdul Final	Susan Initial	Susan Final
Question Words										
cómo	0	0	0	0	0	0	1	1	0	0
qué	1	3	1	3	0	1	1	1	0	2
quién	0	0	0	0	1	0	0	0	0	0
Options not used by *any* focal student: adónde, cuándo, cuál, cuánta, cuánto, dónde,										
Negatives										
nada	0	1	1	1	0	0	0	0	1	0
ni	2	0	0	0	0	0	0	1	0	0
no	27	18	10	7	7	7	8	6	5	13
nunca	1	0	0	0	0	0	0	0	0	0
tampoco	1	0	0	0	0	0	0	0	0	0
Options not used by *any* focal student: al contrario, jamás, nadie, ningún, ninguna, ninguno, sin,										
Conjunctions										
como	11	36	24	10	0	2	5	10	5	4
después	0	1	11	5	1	0	4	1	2	0
entonces	5	17	0	0	0	0	0	0	0	0
ni	2	0	0	0	0	0	0	1	0	0
o	1	4	1	1	1	0	4	3	1	1
pero	3	1	4	4	3	4	1	0	6	0
porque	13	13	6	9	6	0	2	2	3	9
si	6	15	6	4	0	0	1	2	0	0
y	55	57	31	46	32	40	29	31	24	18
Options not used by *any* focal student: así que, e, hasta que, mientras, por lo tanto, sino, u, ya que										
Modal Auxiliary Verbs										
deber	0	2	0	0	0	0	0	0	0	0
estar	26	28	19	18	12	14	19	0	10	7
haber	6	13	1	2	3	3	2	0	0	0
poder	6	7	2	6	0	6	9	11	2	1
ser	21	20	7	9	12	14	12	7	13	21
tener	18	16	8	9	12	6	5	19	2	9
Personal Non-Reflexive Pronouns										
él	1	0	0	2	4	3	0	0	0	0
ella	10	2	1	0	4	1	1	1	1	0
ellas	2	0	0	0	0	0	0	0	0	0
ellos	0	0	0	2	0	1	1	2	0	0
la	30	21	4	5	3	3	21	17	4	4
le	2	8	0	0	1	0	0	0	3	5
lo	4	8	0	0	1	1	1	0	0	1
me	12	14	1	10	1	2	0	2	0	0
mí	7	2	0	0	0	0	0	0	0	1
nos	0	1	1	0	0	0	0	0	0	0
nosotros	0	1	0	1	2	0	0	0	0	0
se	20	18	20	3	5	1	21	5	6	0
te	1	2	0	0	0	0	0	1	0	0

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[9] The calculation was made for tasks 2 to 5 to allow for a complete analysis of the focal students' entire discourse sample. Task 1 was excluded since most answers were one-word or short phrase responses to questions.

tú	0	0	0	0	0	0	0	0	0	3
yo	24	16	6	22	11	27	7	14	10	19

Options not used by *any* focal student: nosotras, os, tí, Ud., vos, vosotras, vosotros

Possessive Pronouns, Determiners & Adjectives

de él	0	0	0	0	0	1	0	0	0	0
de ésto	0	2	0	0	0	0	0	0	0	0
mi	12	22	2	21	6	9	1	1	12	4
nuestra	0	1	0	0	0	0	0	0	0	0
su	4	2	10	1	1	1	0	0	1	0
tu	0	1	0	0	0	14	0	2	0	1

Options not used by *any* focal student: de aquél, de aquélla, de aquéllo, de ella, de ellas, de ellos, de ésa, de eso, de ésta, de éste, de nosotras, de nosotros, de Ud., de vosotras, de vosotros, mía, mío, nuestro, vuestra, vuestro, suya, suyo, tuya, tuyo

Demonstrative Pronouns, Determiners & Adjectives

éso	2	6	1	1	1	4	0	1	0	2
éste	0	1	0	0	0	0	0	0	0	0
ésto	0	2	0	0	0	0	0	0	0	0

Options not used by *any* focal student: aquél, aquélla, aquéllos, ésa, ése, ésta

Relative Pronouns

que	23	27	6	13	0	10	1	9	1	6

Options not used by *any* focal student: cual, cuya, cuyo, quien

Universal Pronouns & Determiners

los dos	0	1	0	0	0	0	0	0	0	1
toda	0	3	0	0	0	0	0	0	0	0
todo	2	4	0	2	1	4	0	0	1	0
todos	0	1	0	2	2	2	1	0	1	0

Options not used by *any* focal student: ambas, ambos, cada, las dos, a todas partes, en todas partes, por todas partes

Partitive Pronouns & Determiners

algo	1	2	1	1	1	0	0	2	1	0
alguien	1	2	0	0	0	0	0	0	4	0
alguna	0	0	0	1	0	0	0	0	0	0
alguno	1	0	0	0	0	0	1	0	0	0
cualquier	0	1	0	0	0	0	0	0	0	0
nada	0	1	1	1	0	0	0	0	1	0
un	10	14	8	4	17	16	15	10	8	8
una	13	11	2	10	0	1	1	1	1	0

Options not used by *any* focal student: algún, cualquiera, nadie, ningún, ninguna, ninguno

Quantifying Pronouns & Determiners

mucha	1	0	0	0	0	0	0	0	0	0
mucho	7	4	2	1	0	2	1	0	2	1
pequeña	1	0	0	0	0	0	0	0	0	0
pequeño	0	1	0	0	10	0	0	0	0	0
uno	2	3	0	2	1	0	10	1	0	1

Options not used by *any* focal student: bastante, muchísima, muchísimo, poca, poco, suficiente, unas cuantas, unos cuantos, varias, varios

CHAPTER 5: FINDINGS FROM CLASSROOM DISCOURSE ANALYSIS

Chapter 4 explored shifts in focal students' linguistic complexity as well as the differences between students' language use patterns as compared to other focal students and to a comparison group of bilingual same-aged peers. Chapter 5 looks more closely at the classroom discourse patterns used by focal students (and their classmates) during the study. Interaction patterns were recorded during language-focused differentiated instruction in math and reading. Focal student discourse patterns were reviewed from an ideational, interpersonal and textual lens (Halliday & Hasan, 1985) in order to answer the question, "How do students having different home language backgrounds and Spanish language proficiency levels respond linguistically and relationally to differentiation strategies?"

In comparing the transcriptions recorded before and during the implementation of the instructional design, it became apparent that all students shifted in their use of language as a mediational tool. Overall, students appeared to participate more, use more complex language, and reflect more upon their language use during small group interactions. However, different focal students constructed ideas and relationships in slightly altered ways throughout the study. The transcriptions of those recordings were analyzed using concepts from interactional sociolinguistics, a framework that conceptualizes classroom talk as a mediational tool for learning. Specifically, constructs that were used to analyze the data include "intertextuality" and "authenticity."

Intertextuality occurs when speakers draw on an already known text (oral or written) to create a new text. "Scholars have looked at the analysis of intertextuality--the likeness between texts produced on different occasions--as a way to understand relationships between micro interactions of particular discursive events and large-scale discursive formations (Dick, 2011, p. E41). Students may draw on phrases or voices that they have heard in the community. As they are repeated in the classroom, these oral texts become part of the repertoire of discursive practices that are shared among the community. Through intertextuality, "in-the-moment" utterances take their meaning from shared knowledge of past instances of talk (Bailey, 2008). Intertextuality has been described in relation to immersion programs as, "the traces or echoes of language that show up as speakers draw from the texts, discourses and languages around them to create

their own speech communities" (Dorner & Layton, 2014, p. 27). Each student engaged in intertextuality as a tool to push the boundaries of their current linguistic complexity and try on playful or powerful intertextual voices that could potentially lead to a change in language use patterns.

Authentication is a mechanism by which "speakers make claims to realness" (Bucholtz & Hall, 2005, p. 601). Bucholtz and Hall (2005) have illustrated examples of authentication from Icelandic poetry in which the tellers use linguistic tools to authenticate not only the story, but also their right to tell the story as an "true" member of Icelandic society. "Authenticating moves" have also been described as overt stances taken to display and enact ethnic identity (Shenk, 2007). Nevertheless, ethnic identities are not static and in-group/out-group categories are overly simplistic (Berry, 2005), especially in classrooms with a range of home language backgrounds and language proficiency levels. Authenticated membership in participant-created categories tends to facilitate or constrain participation in classroom communities (Berry, 2006; Bucholtz & Hall, 2005; Cashman, 2005; Larson-Freeman, 2004). Children in bilingual environments, therefore, must negotiate their right to claim a bilingual identity based on the linguistic tools available to them.

For purposes of this study, "authentication" is used as a construct to describe how students constructed a category of "bilingual student" connected to their use of Spanish and their right and expectation to use particular linguistic forms as a member of an imagined classroom community of bilingual students. Interactional sociolinguistics has often been concerned with, "what sorts of language and language users count as 'genuine' for a given purpose" (Bucholtz & Hall, 2005, p. 601). However, in an immersion context with young children, it may be difficult to determine who is and who isn't a "native speaker" or genuine bilingual student when *all* students bring a diverse linguistic and cultural background to school. Students, therefore, must negotiate their membership in the classroom not only through speaking Spanish, but also by accepting or rejecting their use of "authentic" functional language. "Denaturalization," however, occurs when the "claims of rightness of identity are subverted" (Bucholtz & Hall, 2005). This could occur by interactional moves that position a student in a role of "imposter" or non-member of the bilingual clasroom community. This focus on negotiation of

community membership is important in studies where learning is conceptualized as not only the attainment of a cognitivist "a priori target rules and structures being assimilated by the individual mind," but also as the, "evolving bond between the individual and others--becoming a member of the community" (Larson-Freeman, 2005, p. 606). In this study, students both defined what it meant to be bilingual through their interactions, but also accepted or contested this ever-changing category through their use of functional language options provided for them. Students in the study tended to engage in peer interactions that appeared to confirm or contest the construction of their bilingual identities through social interaction. The increased attention to language caused by this tension appeared to lead to an increased awareness of students' relationship not only to Spanish but also to other languages available to them. Authenticating moves in the classroom drew attention to *all* students' understanding of their linguistic and cultural relationship to Spanish and bilingualism in general.

Findings are presented for each focal student below. Interpretations of discourse patterns are first presented for math and then reading, from both before (Phase 1) and during (Phase 2). Transcription conventions for classroom interactions can be found in Appendix M. Original oral text (in English or Spanish) is presented in the left column and the translation is presented on the right. Translations are in italics. If the whole utterance was in English, it is not translated. If the utterance was a collection of English and Spanish, then the Spanish portions are translated (and italicized) and the English is included but not italicized.

Katrina: Awareness through Authentication

Katrina was an outgoing and talkative SHL student with extensive proficiency in her home language. She was one of two students in the classroom who had the highest oral proficiency levels according to the initial SOPA. She reported speaking only Spanish at home and often visited her relatives in Mexico. However, she was not in the highest Spanish reading groups and this could potentially be limiting her academic Spanish oral language proficiency development. Additionally, Katrina was clearly part of a bilingual community, which provided her with "an expanded set of linguistic resources for...ongoing social negotiations and often a broader range of relevant social categories to

116

enact or contest" (Baily, 2008, p. 257). Her extensive linguistic resources made her uniquely attuned to the new language option presented to the students during the study.

Katrina responded very positively to the focus on language during the study and in her final interview mentioned how "impressed" her mother was with the change in her interest and engagement in her learning. Throughout the study, she appeared to show increased awareness of her identity as a Mexican-American bilingual student and that may have increased her feelings of authenticity through the increased valued placed on original words and phrases from Mexico used during classroom interactions.

Math Games

During Phase 1 of the study, most students used limited language during the Math Games portion of the day. Students interacted with peers during each game using primarily number words and phrases such as "mi turno/tu turno" (*my turn/your turn*) or "cambio" (*exchange individual cubes for groups of ten*). These were phrases that signaled changes in activities. Towards the end of each game, students would need to decide the winner. At this point, "yo gané" (I won) was repeated at varying rates of volume and tone, depending upon the amount of disagreement for each group of students. While the students appeared to enjoy the games, the academic content and linguistic complexity were limited. Students worked on their math skills (adding and subtracting) and their relationships using well-known, safe phrases and terms. Even Katrina, an experienced bilingual student, limited her language use to these accepted forms.

In Excerpt 5.1 shows an example of Katrina's typical language use as she interacted with Matthew, a less proficient African-American student, for two interactions that occurred during the first five minutes of the game. In line 1 we see Katrina's externalized speech while she thought through the number problem and Matthew's claim (line 4) that Katrina's time was up (thereby awarding points to Mathew). Katrina rejected Matthew's claim (line 5) using first person past tense (yo dije), the accurate form that Matthew did not echo (line 6) when he responded in third person present (yo dice). Katrina did not use more elaborate language to argue her point as she may have with another SHL student, perhaps because she didn't feel that Matthew would understand. Therefore the interaction in lines 7 to 9 remained at a yes-no argument without any supporting details or diverse language to expand the argumentation function. Katrina's

use of "mi turno" (line 9) signaled an end to that interaction goal and invited Matthew to change roles (which they did).

A few minutes later, the children again disagreed about the winner and used yes-no arguments to support their positions in lines 11 to 13. Matthew playfully accused Katrina of cheating (line 14) using an creative syntactical form (tu estás cheating) and Katrina again ended that interaction with "yo gané" (I won) in line 15. This was a very typical example of the overall participation structure enacted during this activity. The functional use of language was limited to counting, arguing and signaling a change in play. Few forms were implemented and limited words were used meet students' ideational and interpersonal communicative goals.

Excerpt 5.1.

1	diez, once, doce, trece, catorce, quince, dieciséis, diecisiete. diecisiete!	Katrina	*ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen. seventeen!*
	ya! ya es mío.	Matthew	*time's up! it is mine.*
5	no. no. yo dije diecisiete.	Katrina	*no. no. I said seventeen.*
	<u>sí</u>. porque yo dice ya.	Matthew	*yes. because I (he) said time's up.*
	<u>no</u>!	Katrina	*no!*
	<u>sí</u>!	Matthew	*yes!*
	<u>no</u>! mi turno!	Katrina	*no! my turn.*
	--		
10	diecisiete!	Matthew	*seventeen!*
	<u>no</u>!	Katrina	*no!*
	<u>sí:</u>! diecisiete.	Matthew	*ye:s! seventeen*
	<u>no</u>! (hhh)	Katrina	*no! (hhh)*
	tu estás cheating!	Matthew	*you are cheating!*
15	no. yo gané. °ok. ok. bien.°	Katrina	*no. I won! °ok. ok. fine.°*

(Katrina and Matthew, Transcript, October 9, 2014)

At the start of Phase 2, the teacher (Brad) introduced the new language-focused activities during a large group session. All of the students sat on the carpet in a circle

while the teacher presented each new phrase to the group. In Excerpt 5.2, Brad began the lesson by explaining (lines 1-12) that many of the phrases were idiomatic from countries such as Spain and Mexico. When Mexico was mentioned (line 13), Katrina turned her head towards the front of the room, sat up and exclaimed (line 14) with enthusiasm and an apparent swell of emotion that she had lived in Mexico. Although Brad didn't acknowledge her statement or other statements from the students about Mexico, Katrina continued to speak quietly, concurrently with the teacher, about how she was born in Mexico, thereby creating a relation of authentication between the topic being discussed (Mexico) and an important event in her life, her birth. She looked around at other students in a potential attempt to receive affirmation. She then used authenticating discourse moves via nonverbals as she shook her head and said "no" then "yes" (lines 16-18) as the teacher described Mexican idiomatic language, possibly to further authenticate her expertise regarding what is and isn't "Mexican." Katrina's engagement with this classroom discussion created a bridge between the abstract concept of Mexico and the in-the-moment discussion occurring during the large group presentation. The increased opportunities for authenticating moves appeared to increase Katrina's awareness not only of the activity but also of her linguistic and cultural identity.

Excerpt 5.2.

1	qué padre. qué bien. qué bueno. esto no es decir qué padre como que el <u>padre</u> llegó.	Brad	*that's father [cool]. that's good. that's great. I am not trying to say the <u>father</u> arrived. [explaining]*
	(hhh)	class	
5	es una manera, es como el dicho qué <u>mono</u>. no es decir. oh! hay un mono allí.	Brad	*it's a way, it is like the saying that's monkey [cute]. you are not saying. oh! there is a monkey here.*
	(hhh)	class	
10	es como decir. oh! precioso. qué mono. que padre es como qué chévere. guay! yo diría eso porque	Brad	*it is like saying. oh! precious. that's cute. that's cool. it is like saying chévere [cool] güay*

	viví en España.		*[cool]. I would say that since I lived in Spain.*
	y esto es de México=	Amy	*and this is from Mexico.*
	=yo viví en México!	Katrina	*I lived in Mexico!*
15	qué padre es muy [mexicano.	Brad	*that's cool is very Mexican.*
	[°no!° [shaking head] °yes!° [puts hands in the air as if claiming victory]	Katrina	
20	yo también! todo mi familia es de México.	Other Student	*me too! all my family is from Mexico*
	y aqui en los estados unidos [tenemos un vocabulario más mexicana	Brad	*and here in the United States [we have a more Mexican vocabulary*
	[°es que de una bebé.° (1.0) °viví allá.° [looking around]	Katrina	*[°it's that as a baby.° (1.0) °I lived there.° [looking around]*

(Katrina, Transcript, November 14, 2014)

In Excerpt 5.3, recorded during the second day of Phase 2, the language patterns did not change dramatically for Katrina and her peers. However, we see that Xochitl, another Hispanic SHL student with similar proficiency levels, encouraged Katrina to use more diverse language during their interactions (lines 1 and lines 7-8). The students also appeared to use playful intertextual language play to work on their relationship (lines 4 and lines 9). They exaggerated their language productions, with higher, hyper-feminized voices and took on roles that may have indexed (or referred to) social interactions they had witnessed in the past.

Lines 10 to 26 show the interaction that occurred during the turn-and-talk at the end of this class. Katrina took on the role of a language expert as she corrected Walker, a Hispanic student with very low proficiency. When he used an incorrect translation for a number he had already stated in English, she corrected him repeatedly (lines 16 to 21) and then questioned his truthfulness and ability to win a math game (lines 23). This may signal an increased awareness of herself as a language expert or of Walker's inability to be trusted as a source of Spanish language production. In line 12, however, Katrina

copied the use of the masculine form of the noun and pronoun (her partner was female) found on the sentence starter provided during the activity. Ironically, by drawing on the text provided to her instead of trusting her instinct, her language resources may have been undermined.

Excerpt 5.3.

1	tienes que decir algo.	Xochitl	*you have to say something.*
	e:xcele:nte:!	Katrina	*e:xcelent!*
	o fabulo:so!	Xochitl	*oh! fa:bulous!*
5	fabuloso. thanks. ah. tengo ocho! uno mas! qué bien!	Katrina	*fabuloso.* thanks. *ah. I have eight! one more! great!*
	--		
	seis, siete, ocho. ocho, siete.	Katrina	*six, seven, eight, eight. seven.*
	me tienes que decir algo a mí. te acuerdas?	Xochitl	*you have to say something to me. remember?*
	qué triste. I´m just kidding.	Katrina	*too bad.* I'm just kidding.
	--		
10	ok. yo en el juego yo tenía cuarenta y mi compañero tenía cincuenta. entonces mi compañero ganó.	Katrina	*ok. in the game I had forty and my (male) partner had fifty. therefore my partner won.*
15	yo con él y Leticia tengo hm. treinta y yo tengo hm. seventy.	Walker	*Me, with Leticia, I had. hm. thirty and I had. hm* seventy.
	setenta!	Katrina	*seventy!*
	sesenta.	Walker	*sixty.*
	setenta!	Katrina	*seventy!*
	sesenta.	Walker	*sixty.*
20	<u>setenta:</u>!	Katrina	*se:venty!*
	sestenta.	Walker	*seventy.*
	ajá.	Katrina	*aha.*

y yo gané.	Walker	*I won.*
no creo. digo. nada. yo tenía 25 cuarenta y mi compañero tenía cincuenta, entonces él ganó.	Katrina	*I don't think so. I mean. nevermind. I had forty and my (male) partner had fifty, therefore he won.*

(Katrina, Xochitl, and Walker, Transcript, November 17, 2014)

While Katrina continued to play with language and share her excitement for the new words and phrases, she presented similar errors during closure activities. The teacher recommended speaking with her (and other students) during the closure portion of each activity in order to encourage students to include more complex forms and focus on accuracy in their work. These mini-conferences improved the use of particular forms, lexical choices, and accents among SHL students, however more complex topics (e.g., syntactic constructions) were too challenging to work on with the students during such a short time.

Peer Reading

During Phase 1, Katrina interacted very little with her peers during small group reading activities. Most interaction occurred while choosing digital or print materials. The students spoke in English and Spanish about their reading levels ("L" was mentioned often for Katrina's group) and which books they liked. After a text was chosen however, students either read silently or read aloud without any meaningful discussion. Interactions were related mainly to negotiating disagreements or sharing personal information.

During Phase 2, Katrina interacted much more with her peers, apparently due to the structured nature of interaction. In Excerpt 5.4, Katrina worked with Susan, another focal student. In lines 1 to 4, Susan and Katrina both used phrases and words from the support materials to interact with each other. They adopted teacher and student roles as they took turns reading and discussing their personal connections to the reading. Susan's comment about Katrina not thanking her (line 4) may imply that Susan was not ideationally engaged in the interactions, but merely echoing the statements. However, in Line 9 we see evidence that Katrina was pushing herself to use a variety of different verbs, as she stopped herself from saying, "aprendimos" (we learned) and instead used "descubrimos" (we discovered). The teacher had encouraged all students, and especially

SHL students with higher levels of proficiency, to use a greater variety of and more specific nouns and verbs; ('aprender' was a verb that was repeatedly used so students were encouraged to try new, more diverse options). Katrina ended with a cheer (line 12) when it was her turn to take on the teacher role. She was often excited and engaged during the activities and appeared to enjoy playing with language regardless who her partner was throughout Phase 2. By providing a new "shared repertoire of prior texts" (Becker, 1994, p. 165) from which the students could draw to construct their own utterances, the teacher was providing increased exposure to new linguistic options. Excerpt 5.4.

1	me encanta cómo leíste! lo hiciste muy bien!	Susan	*I love how you read! you did it very well.*
	qué amable!	Katrina	*how nice of you!*
5	Katrina. necesitas ser gracias. mil gracias. qué amable.	Susan	*Katrina. you need to say thanks. a thousand thanks. how nice.*
	ya lo hice.	Katrina	*I already did.*
	oh. ok. qué aprendimos en este página?	Susan	*oh. ok. what did we learn from this page?*
10	Aprend- descubrimos que Juan estaba celoso de su amigo.	Katrina	*We learn- We discovered that Juan was jealous of his friend.*
	ok. tú eres el maestra.	Susan	*ok. you are the teacher.*
	woot! woot! [cheering]	Katrina	

(Katrina and Susan, Transcript, December 8, 2014)

Katrina's Final Interview

In her final interview, Katrina mentioned that most of her family lived in Mexico. By the end of the study, she had experienced many opportunities that appeared to have thickened the authentication of her Mexicaness as a cultural and linguistic resource. Thickening (Bartlett, 2008; Leander, 2002) is a term that has been used to describe the interactional process through which a particular identity becomes stabilized. In Excerpt 5.5 Katrina described for me the connections that she had to Mexico. Her repetition of "toda toda" (line 2) not only places emphasis on the statement that all, all of her family is in Mexico, but also indexes a playful use of the phrase that is often used in Mexico. Excerpt 5.5.

1	ajá. y entonces sólo nosotros cuatro estamos aquí. toda nuestra familia está en México. toda toda.	Katrina	*aha. and so only the four of us are here. all our family is in Mexico. all of it.*
	toda la familia?	Amy	*all of your family?*
5	ajá. y algunos están aquí porque se mudaron. mi tía. y tenemos más tías aquí. más familia como un montón! hay como diez o más tías. diecisiete? veintiuno. allá están	Katrina	*aha. and some are here because the moved here. my aunt. and we have more here. more family like a bunch! there are like ten or more aunts. 17? twenty-one. there are 21 of them there and*
10	veintiuno de ellos y aquí están como diecisiete.		*here around seventeen.*

(Katrina, Transcript, December 16, 2014)

Later, in the interview, Katrina stated that she was more motivated in general in school once these language-focused discussions started to take place. She described her connection to certain linguistic forms, not as resources necessarily, but as memories that tied her to a place with positive connotations. Bilingual students often encounter hybrid social and cultural practices and work at, "postioning themselves and others within it" (Bailey, 2007, p. 257). It may be that explicitly making connections between classroom practice (developing Spanish oral language proficiency) and specific locations important to Katrina, the teacher provided support, not only for language development, but also for "cultural sense-making."

In Excerpt 5.6, Katrina described how the attention to Spanish facilitated not only an emotional benefit, but also a potential future pay off. Norton and Toohey (2001, p. 312), in describing good language learners have labeled this type of motivation "investment." They argue that learners have expectations regarding the extent to which their investment in developing multilingual language resources will help them "acquire a wider range of symbolic and material resources, which will in turn enhance their conception of themselves and their desires for the future" (p. 312). Katrina not only discussed her hope to some day buy a house (line 18-19), but she also connected specific words to her memories of Mexico (line 28). She enthusiastically declared, "mexicano!" (*Mexican*) (line 31) with rising intonation, which is a common phrase to express pride in Mexican culture. She discussed her enjoyment of the Mexican words and phrases used by her classmates and then transitioned from those emotional linguistic connections to her emotional connections to her favorite food, tamales (line 35 to 36). By aligning food and language, she may have been connecting her increased investment in school to her ability to share her newly authenticated experience and love of Mexico with her classmates and teachers.

Excerpt 5.6.

1	ya ves que las actividades que yo hice con las hojas que tenían que usar frases.	Amy	*you know the activities that I did with the pages where you had to use phrases.*
5	yo le conté eso a mi mamá y dijo que le gustó mucho. le conté lo que hizo usted y a mi mamá la impresionó.	Katrina	*I told my mom and she said that she liked that a lot. I told her what you did and my mom was impressed.*
	sí? y por qué?	Amy	*really? why?*
10	porque a ella le gusta como que me animé en la escuela y muchas cosas entonces.	Katrina	*because she likes it when I am excited about school and lots of things really.*
	se animó! oh qué bien! y por qué te gustó? se te hizo divertido?	Amy	*excited. oh that is great. and why did you like them? were they fun for you?*

15	porque se me hizo como que estuviera aprendiendo más y mi papá siempre me ha apoyado porque me ha dicho, tienes que trabajar más y podrás tener una casa. y él siempre me apoya.	Katrina	*because I felt like I was learning more and my father always has supported me because he has said, you have to work more and you will be able to have a house. and he always supports me.*
20	oh que bien! qué amor tu papá verdad?	Amy	*oh great! what a lovely person your father is right?*
	mi mamá también me dice eso porque quiere también apoyarme.	Katrina	*my mom also tells me that because she also wants to support me.*
25	ah muy bien. y de las frases que aprendimos en la escuela cuales te gustaron?	Amy	*ah great. and which of the phrases that we learned in school did you like?*
	me gustó qué chévere. por fis. yo lo usé mucho en México.	Katrina	*I liked cool and pretty please. I used them a lot in Mexico.*
30	se usa mucho verdad? y [es divertido.	Amy	*it is used a lot right? and it's fun.*
	[mexicano!	Katrina	*Mexican!*
	mexicano! muy bien!	Amy	*Mexican! great!*
	puedo decirle mi comida favorita?	Katrina	*can I tell you my favorite food?*
	sí.	Amy	*yes.*
35	mi comida favorita es tamales de dulce. de dulce. me gustan los tamales de dulce.	Katrina	*my favorite food is sweet tamales. sweet ones. I like the sweet tamales.*

(Katrina, Transcript, December 16, 2014)

Jessica: Intertextuality and Engagement

During the study, Jessica quickly incorporated new words and phrases into her language use. Although Jessica did not come from a Spanish-speaking community, she had quite complex language use and picked up new forms quickly. She especially appeared to enjoy enacting a "teacher voice" and would often take on the intertextual

volume, tone and role of a stereotypical teacher as she interacted with other students. Although Jessica appeared to be a successfully developing bilingual student, there is evidence that she may have been questioning her place in the bilingual community. By taking on the stance of a teacher instead of enacting more equal interactions with her peers, she may have avoided the, "negotiation of a shared orientation to [the] texts" that could lead "group members [to] discuss and develop their own [group] beliefs, sensibilities, and styles" (Trester, 2012, p. 255). She appeared to view the new functional language as a resource to be brokered. She tended to separate herself from the group and took on the role of "language broker" (Coyoca & Lee, 2009; Lee, Hill-Bonner, & Raley, 2011) while constructing shared texts through more playful interaction. Jessica's teacher-like actions may also have suggested to Brad and me that she was more engaged and invested in her bilingual identity development than she actually was.

Math Games

Jessica echoed a familiar teacher voice throughout both Phase 1 and Phase 2. In Phase 1, she had fewer language models to emulate, so despite her role of leader, she still used the same limited functional language as the other students. In Excerpt 5.5, Jessica offered to roll the dice for another student, Jackie. Jackie was an African American student with lower levels of Spanish oral language proficiency. However, Jackie was very participative and could have played the game without Jessica's assistance. Line 1 shows Jessica's ability to use complex forms with proper first person present conjugation (unlike many EHL students) with the addition of an infinitive and object pronouns. However, the language quickly switched to English (in lines 5-9) when a SHL student, Timothy, expressed an idea that was apparently outside of his linguistic comfort zone. Timothy, Hispanic and White with intermediate Spanish proficiency, often switched to English to express complex ideas. Towards the end of the game, the students argued over who actually won the game (lines 10-13). We can see that there were a number of functional areas where student language use could be supported in the future including the distribution of materials (lines 5-9), expressing disagreement (line 11), and mediating differences in opinion (line 12).

Excerpt 5.7.

1	yo puedo hacerlo por tí. voy a rodar por tí. ok Jackie? [rolls] seis!	Jessica	*I can do it for you. I am going to roll for you. ok Jackie? (rolls) six!*
	ajá.	Jackie	*aha.*
	nueve!	Jessica	*nine!*
5	I am going to grab a handful and just see. those two. mira. those two are supposed to be in there. ponen, poniendo estos. I'm putting this back. back. look.	Timothy	I am going to grab a handful and just see. those two. *look.* those two are supposed to be in there. *put, putting those.* I'm putting this back. back. look.
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10	yo gané el juego.	Jessica	*I won the game.*
	no. yo tenía cuarenta y cuatro!	Timothy	*no! I had forty-four.*
	contamos. contamos.	Jackie	*we will count. we will count.*

(Jessica, Jackie and Timothy, Transcript, October 22, 2014)

During Phase 2, Jessica again spoke like a teacher regardless of the task or peer. However, as the linguistic challenge increased, Jessica's ability to guide the other students in completing the tasks became more tenuous. In Excerpt 5.6, Jessica attempted to assist another student, Eric, Hispanic and White, who had very low Spanish language proficiency. He had been in the school for less than a year, and despite having Mexican grandparents, often asked for help when expressing himself in Spanish. Jessica was moving around the room asking others if they needed help as students prepared to report out after the Math Game activity. Jessica clarified that she would help Eric, but not clean up for him (lines 2-4), taking on a motherly tone. Eric asked her if the verb form (from the word bank) should be placed next to the first person or third person sentence starter (lines 5-6). In lines 11 and 12, Jessica prompted Eric to consider his gender in deciding which verb form to use. By drawing on discursive practices that recreate a comfortable participant structure involving an "expert" and a "novice," both students could enact a learning sequence without any actual learning occurring. By authenticating her membership in this bilingual community through the use of language expertise, Jessica

may have been attempting to claim her place in the clasroom and negotiate her "genuineness" as a bilingual student. While Jessica's increased intertextual use of teacher language appeared to assist her language development, it often did not assist her "students" in their work to increase oral and written language proficiency.

Excerpt 5.8.

1	entiendas? necesitas ayuda? gracias. ok. ya terminé. necesitas. no. yo estoy ayudando pero yo no voy a recogerlos también.	Jessica	*do you understand? do you need help? thanks. ok. I finished. you need. no. I am helping you but I am not going to pick those up.*
5	wait. se terminó aquí o se terminó aqui?	Eric	wait. *it finished goes here or here?*
10	ok. al final del juego el resultado fue que yo terminé. terminó o terminé? so terminó o terminé? estás una niña?	Jessica	*ok. at the end of the game the result was that I finished. [I] finished or [she] finished? so [I] finished or [she] finished? are you a girl?*
	no. (hhh) terminó?	Eric	*no. (hhh) [she] finished?*
	terminó, sí.	Jessica	*[she] finished, yes.*
	gracias.	Eric	*thanks.*
	de nada.	Jessica	*you're welcome.*

(Jessica and Eric, Transcript, November 25, 2014)

Peer Reading

During Phase 1 reading activities, a majority of Jessica's peer interactions were focused upon interpersonal work in English and reading out loud in Spanish without any peer interaction regarding the text. For example, on November 5, Jessica and her peers (Xochitl and Abdul) spent 27 minutes talking in English about upcoming travel during vacation and their birthdays instead of talking about the text they were reading. In Spanish they talked about their pets. They sang a few songs and read out loud occasionally.

However, during Phase 2, Jessica repeatedly enacted her teacher role. Similar to Katrina, Jessica seemed to expand her language use most towards the end of Phase 2

during Reading classes. This was most apparent during the large group reporting out activities that the teacher facilitated at the close of each session. Jessica often volunteered to talk about her small group experiences and managed to use more complex academic language without extensive prompting from the teacher. Excerpt 5.9 presents Jessica's oral report to the large group during her first recorded session. In line 1, Jessica used the transitional phrase "al final" as well as a past tense form of "aprender" (to learn) although not the accurate form. In line 2, she used a past participle. She also used five accurate past tense verbs and an infinitive (lines 4-7). Overall this statement, presented to the whole class orally, included two related coordinated main clauses, each with more than one subordinating clause. It is interesting to note that during the interview, Jessica mentioned this teacher-guided reporting activity as her favorite part of the lessons. Excerpt 5.9.

1	al final, yo aprendía que la información aprendida de los subtítulos fue que construyeron el preso en 1920 y juntos	Jessica	*finally, I learned that the information learned from the subtitles was that they built the dam in 1920, and together we*
5	aprendimos que el presa se tomó mucho tiempo para construir.		*learned that the dam took a long time to build.*

(Jessica with large group, Transcript, December 4, 2014)

Excerpt 5.10 illustrates how Jessica worked with her peers during the final days of the study. In this excerpt she worked with Cory, a White student with particularly high levels of proficiency. As they worked through the reading, Jessica and Cory both supported each other as they read and discussed their connections to the reading. While the structured text remained formulaic (lines 1-3 and line 11-12) and retained Jessica's teacher voice (line 2), their discussions were quite extensive and complex (lines 5-10, lines 11-14, lines 15-24). A few minutes later, as students were preparing to write their final report, Jessica used the verb "añadir" (to include additional information) in her report (line 15). This was one of the target "academic" verbs and was not a commonly used verb in the classroom prior to the study, even with SHL students.

Excerpt 5.10.

1	estupendo!	Cory	*outstanding!*
	<u>grac</u>- mil grac- gracias! algo más?	Jessica	*thank- a thousand than- thanks! anything else?*
	conexiones?	Cory	*connections?*
5	um. una vez yo estaba. una vez yo estaba dormida y mi hermano dijo quieres hacer un estanque? y yo sí. puedes hacerme uno y esta es mi historia de cuando mi hermano me	Jessica	*um. one time I was. one time I was sleeping and my brother said do you want to make a pond? I said yes. you can make me a pond and that is my story*
10	hizo un estanque. ok. tu eres el niño. a leer por favor.		*about when my brother made me a pond. ok. you are the child. read please.*
	[Cory reads out loud]	Cory	
	perfecto! conexiones?	Jessia	*perfect! connections?*
	--		
15	[singing] ok. todos. yo añadí unas conexiones incluyendo que. una vez- [writing]	Jessica	*[singing]ok. all of them. I included some connections including. one time- [writing]*

(Jessica and Cory, Transcript, December 10, 2014)

Jessica's Final Interview

Although Jessica had the second highest oral proficiency scores among the EHL students, she was the only student in the study to express a desire to leave the immersion program. Her siblings attended school in English medium schools and she was hoping to switch schools after fifth grade. In Except 5.11 she explained why she wanted to exit the program despite her apparent success at attaining Spanish.

Excerpt 5.11.

1	algunas veces me gusta porque algunas veces me gusta hablar español y algunas veces me gusta hablar inglés. pero <u>algunas</u> veces.	Jessica	*sometimes I like it because sometimes I like to speak Spanish and sometimes I like to speak English. but <u>some</u> times.*

5	como mi hermano va a la escuela de [name of school] y mi mamá dijo que yo puedo ir cuando yo estoy en 'sixth grade' [English].		*since my brother is going to the [name of school] and my mom said that I could go there when I am in* 'sixth grade' [English].
20	en sexto?	Amy	*in sixth grade? [Spanish]*
	sexto grado y yo quiero ir uno porque se hablan inglés. pero algunas veces yo estoy como oh no! no quiero!	Jessica	*sixth grade and I want to go first of all because they speak English. but sometimes I am like no! I don't want to!*

(Jessica, Transcript, December 16, 2014)

Jessica mentioned that she valued bilingualism mainly for the opportunities that it could provide her and for the possibility that it could help her to communicate, "when people don't speak English" (Jessica, Transcript, December 16, 2014). In contrast, Jessica was the only student who expressed boredom with the language-focused differentiated instruction (lines 1 to 4 and lines 8 to 9). She expressed a dislike for the language play that took place during Math Games and Peer Reading. In Excerpt 5.11, she explained how the repetition of the peer interaction was particularly unchallenging to her. However, she mentioned that the individual vanishing cloze activity was her favorite part of the activities (lines 5 to 7). This may reflect her investment in particular teaching structures that she feels promote individual achievement and her lack of investment in structured peer interaction.

Excerpt 5.12.

1	algunas veces me gusta y algunas no porque estábamos así en lectura como. <u>ay ay ay</u>! podemos hacer algo diferente? y después venía yo	Jessica	*sometimes I like it and sometimes no because we were in Reading like. oh no! can we do something different? and afterwards that*
5	me gustó el papel blanco que escribímos. y en este estaba divertido. y algunas veces me gustó y algunas veces no me quiero hacer dormir.		*part came and I liked it the white paper where we wrote. and that was fun. and sometimes I liked it and sometimes I don't want to be put to sleep.*

10	pero entonces sentías que era lo mismo lo mismo?	Amy	*but so you felt like it was the same thing over and over?*
	sí.	Jessica	*yes.*

Joel: Authenticating Moves and Emerging Linguistic Identity

Authentication refers to ways that identities are displayed and reinforced through interaction (Bucholtz & Hall, 2005). Joel participated in numerous authenticating moves during classroom interactions. Joel appeared to, "draw on forms from two languages as well as hybrid forms resulting from language contact" (Bailey, 2007, p. 257). While Joel had clear ties to a bilingual community through his family experiences, his teachers and peers often contested his authenticity as a bilingual person. He had never lived in or visited Mexico and spoke English with his mother. The teacher did not consider him to be SHL and often corrected his Spanish use publicly. Unlike Katrina, Joel did not appear to have a strong emotional connection during large group presentations when Mexico and language were discussed. However, throughout the study, his awareness about how language worked appeared to increase. He initiated a number of conversations with other students about their ethnicity. As summarized in Chapter 4, Joel was the student whose language complexity increased the least during the study. He tended to interact very little with his peers during the activities and seemed more engaged with language when dealing with individual paper-and-pencil tasks. However, he appeared to increasingly use his language resources to interact with students as the study progressed.

In Excerpt 5.13, Joel interacted with Diego during Phase 2. Diego, a Hispanic and African American with advanced language proficiency, discussed a reading with Joel. Joel, however, appeared distracted and attempted to test Diego's knowledge of "forbidden language." In lines 2-4, Joel asked Diego if he knew any "bad" words in Spanish. This may have been an authentication move, a test of Diego, or a way for Joel to increase his currency with the other male students. Joel appeared to feel priviledged to know swear words in Spanish. When Diego answered (line 5) that he *did* know bad words in Spanish, Joel acknowledged his authenticity by saying, "Yes. You know" in English (line 13). However, a few seconds later he questioned Diego's Mexican authenticity again (line 5) by stating that Diego was Black (thereby subverting his claims to Mexicanness). By

lowering his voice when he called Diego "Black," the implication could be that he was uncomfortable labeling his friend's ethnicity but also unwilling to support his claim to authenticity without evidence. When Diego confirmed his Mexico heritage (line 23), Joel answered, "Oh. Then yeah." thereby accepting his "natural" connections to Mexico. After this interaction, Joel began to speak to Diego in Spanish more often and appeared to accept both his own and his friend's ownership of Mexicaness despite the complexity of their identities. Joel's increased language awareness seemed to have been triggered by, "the interactional power structure such that, within the discourse context, being Mexican is a privilege that can be taken away by more culturally proficient community members" (Shenk, 2007, p. 212). Nationalities, or classroom communities, are categories and membership in this category is negotiated through interaction and indexing contextualization cues that provide "evidence" of this membership.

Excerpt 5.10.

1	yo voy a ponerlo en la página.	Diego		*I am going to put it on the page.*
	do you. do you. do you know. wait. do you know bad words in Spanish? <u>do</u> you?	Joel		
5	°yes.°	Diego		
	no you don't.	Joel		
	I am part Mexican. yeah.	Diego		
	um. don't tell me but what does this mean? °Chinga-tu-madre°?	Joel	°mother fucker°	
10	aha. what does mean °Chinga-tu-madre°?		°mother fucker°	
	(hhh) I don't want to tell.	Diego		
	yes. you know.	Joel		
	do you know this one? °pinche	Diego	°asshole°	
15	güey°.			
	<u>ah!</u> (hhh)	Joel		
	my mom calls both of us. me, my little sister, even my little brother	Diego		

134

that. and he's two.		
--		
20 ah! you're not her cousin? <u>how</u> is she your <u>cousin</u>? [signaling a common friend] I'm not trying to be. wait. I'm not trying to be racist but you're °black°. you're not 25 Mexican.	Joel	
yeah I am! I'm Mexican.	Diego	
you are? where are you from?	Joel	
what do you mean? what parts am I? what parts I am?	Diego	
30 Mexico?	Joel	
ah. African American and Mexican.	Diego	
oh. then yeah. (2.0)	Joel	

(Joel and Diego, Transcript, December 3, 2014)

After this interaction, Diego and Joel continued to talk about the reading and pretended to be news broadcasters as they asked and answered questions related to the reading in Spanish. A few minutes later, when Joel continued to say "chinga-tu-madre" into the microphone, Diego reminded him in English that, "You know Sra. Amy's going to hear that, right?" Joel quickly answered, "She doesn't know Spanish." That may imply that he didn't remember what languages I spoke (even though we had been interacting in Spanish for over three months). It could also mean that as I am White (and an older woman), I did not have access to the "authentic" language of Mexican boys like he and Diego.

The complexity of racial and linguistic identities appeared to play a larger role in Katrina and Joel's experiences during the study than it did for the other focal students. They spent more time working with authenticating moves than the EHL students. However, there were also many linguistic patterns that were common to all focal

students. The following examples illustrate both these similarities and how Joel's specific language patterns shifted throughout the study during peer interaction.

Math Games

Like many other students, Joel's language use was very limited during Phase 1. In Excerpt 5.14 (recorded during Phase 1), Joel interacted with Xochitl for a number of minutes without using almost any verbs and very little linguistically complex features. Despite their shared Spanish background, they used similar lexis and syntax as the other students. Most of their language consisted of number words (lines 1-3, lines 5-7, lines 12-15). "I have" (lines 1 and 4), "it's my/your turn," (lines 4 and 8) and "exchange" (lines 3, 9, 10 and 15) were the other commonly used functions that were both limited in their complexity and commonly repeated. Although the task demands may have led to the limited language use, in Phase 2 the same task prompted the students to use a wider range of linguistic forms and functions, perhaps due to the language supports provided.

Excerpt 5.14.

1	tengo veinte, veinte, veinte, veinte.	Joel	*I have twenty, twenty, twenty, twenty.*
	ocho. cuatro, cinco, seis, siete, ocho, nueve, diez. cambio! un cambio!	Xochitl	*eight. four, five, six, seven, eight, nine, ten. exchange!*
5	yo solamente tengo seis. tu turno.	Joel	*I only have six. your turn.*
	nueve. dos, tres, cuatro, cinco, seis, siete, ocho, nueve. uno, dos, tres, cuatro, cinco.	Xochitl	*nine. two, three, four, five, six, seven, eight, none. one, two, three, four, five.*
	ok. es mi turno	Joel	*ok. it's my turn.*
10	cambio!	Xochitl	*exchange!*
	otro cambio! muy fácil.	Joel	*another exchange. so easy.*
	sí.	Xochitl	*yes.*
15	ocho. uno, dos, tres, cuatro, cinco, seis, siete, ocho. uno, dos, tres, cuatro, cinco, seis, siete, ocho, nueve, diez. cambio!	Joel	*eight. one, two, three, four, five, six, seven, eight. one, two, three, four, five, six, seven, eight, nine, ten. exchange!*

At times Joel would increase his linguistic complexity such as on October 28, when he explained to me how to play their game,

> estos. si tu ganas. diez de estos. te garras uno. si tu tienes otro de diez te garras dos. si tu tienes diez de estos, tu ganas.
>
> (*These, if you win. ten of these. if you grab one. if you have another of ten you grab two. if you have ten of these. you win.*)

However, often Joel avoided engaging in a task by ignoring his peers or engaging in conflict. Even during conflict, however, Joel used limited textual diversity to meet his interpersonal and ideational goals. In Excerpt 5.15, Joel accused his partner Diego of cheating (a common theme during Phase 1 Math Games). Diego attempted to assist Joel in his mathematical work while they played one of the games. In line 1 Joel attempted to subtract four from nine and came up with six. Diego explained that "they" should look at the number line. Interpersonally and ideationally, the students collaboratively worked in lines 1-18, however there was still limited language use at the textual level. The only conjugated verb used by Joel was "sé" (I know) in line 6. Towards the end of the game, the students engaged in conflict as they disagreed over who won the game (lines 19-27). While this was a common theme in Phase 1, as was typical for Joel, he decided to discontinue his participation in the game (lines 27 and 31). His lack of understanding of the math concept may have led to his attempt to disrupt the practice.

Excerpt 5.15.

1	nueve menos cuatro. seis.	Joel	*nine minus four. six.*
	no es. mira. vamos a ver ahí. Joel! Joel. mira ahí. [pointing to the number line] qué es nueve menos cuatro?	Diego	*it's not. look. let's look there. Joel! Joel. look there. (pointing to the number line) what is nine minus four?*
5			
	no sé.	Joel	*I don't know.*
	mira. mira cuántos números.	Diego	*look. look at how many numbers.*
	dónde?	Joel	*where?*
10	nueve menos cuatro. mira, mira, mira. qué es nueve menos cuatro	Diego	*nine minus four. look. look. look. what is nine minus four Joel?*

137

Joel? nueve, ocho, siete, seis, cinco!		*nine, eight, seven, six, five!*
cuatro.	Joel	*four.*
no! cinco. nueve menos cuatro!	Diego	*no! four. nine minus four.*
15 ok.	Joel	*ok.*
nueve, ocho, siete, seis, cinco!	Diego	*nine, eight, seven, six, five!*
oh!	Joel	*oh!*
so pon el nueve y el cuatro.	Diego	so *put the nine and the four.*
oh cero. cuatro!	Joel	*oh zero. four!*
----		
20 yo gané.	Joel	*I won!*
le voy a decir a Señor Roberts.	Diego	*I am going to tell Mr. Rice.*
pero yo gané!	Joel	*but I won!*
no! pero era mi turno.	Diego	*no! but it was my turn.*
no. tu no. ok!	Joel	*no. you no. ok!*
25 yo gano siete.	Diego	*I win seven.*
no!	Joel	*no!*
no. yo gané todos! no ganas todos. yo gano esta.	Diego	*no. I didn't win all. you don't win all. I win this.*
yo no quiero jugar contigo.	Joel	*I don't want to play with you.*
oh yo también gané cuatro. porque 30 era imposible.	Diego	*oh I also won four. because it was imposible.*
yo no quiero jugar contigo	Joel	*I don't want to play with you.*

(Joel and Diego, Transcript, October 13, 2014)

During Phase 2, Joel continued similar interaction patterns and often did not participate or enacted conflict. However, surprisingly he often reengaged during preparation for the teacher-guided reporting. Like Jessica, he appeared to enjoy the individual linguistic challenge of working with language functions and forms without the added stress of peer interaction. In Excerpt 5.16, Joel worked with Paty, a Hispanic SHL with advanced Spanish oral language proficiency. They struggled to interact during the math game, but worked simultaneously, yet separately, at the end of the activity. In line

1, Joel expressed his confidence at his ability to complete the challenging task. Paty, apparently frustrated with the previous experience, asked him to leave her and Jessica alone to figure out how to report back to the large group (lines 2-3). Joel externalized his inner speech (lines 4, 13, 17 and 24-25) to work through how to present their results while Paty accepted Jessica's assistance to complete the task (lines 5-9, line 11, lines 14-16, and lines 18-23).

At the end of the Math Games time, Joel presented his results. As was common, the teacher corrected his use of English to express the word "fifteen" (line 39) as well as his use of masculine gender (line 41) to describe his female partner. While Brad had not corrected Katrina when she made the same mistake, his evaluation of Joel's engagement and oral proficiency may have led him to correct Joel for the same issue. Unfortunately, this interaction may have caused Joel to further question his authenticity as a bilingual student and may have reinforced his position as a non-participant during Spanish oral language large group participation.

Excerpt 5.16.

1	yo sé qué hacer.	Joel	*I know what to do.*
	so pon las palabras. stop dude. I'm having a bad time right now.	Paty	so *put the words.* stop dude. I'm having a bad time right now.
	qué es eso? al fin del juego.	Joel	*what is this? at the end of the game?*
5	el resultado. hm. opciones. el resultado terminé. [helping Paty]	Jessica	*the result. hm. options. the result ended up. [helping Paty]*
	terminó. oh! terminó. ok. yo leo otra vez. opciones. al final del juego el resultado=	Paty	*ended up. oh! ended. ok. I read it again. at the end of the game the result=*
10	=no se te olviden los acentos. terminó con acento.	Amy	*=don't forget the accents. ended with an accent.*
	el resultado fue [terminé el juego.	Paty	*the result [was [inaccurate]ended the game.*
	[terminó.	Joel	*[ended [accurate]*
	ok. al final del juego el resultado	Paty	*ok. the end result was that I*

	Spanish	Speaker	English
15	fue que yo jugué. terminó. [terminé. sí. terminé.		*played. finished. [inaccurate] [finished. [accurate] yes. finished. [accurate]*
	[terminé con. y mi compañero.	Joel	*I finished [accurate] with. and my partner.*
20	con cincuenta y cuatro y mi. ok. leemos otra vez. vamos a leer otra vez. al final del juego el resultado fue que yo terminé con [cincuenta y cuatro y mi compañero fue terminé o terminó. terminó?	Paty	*with fifty-four and I. ok. let's read it again. let's read it again. the final result was that I ended with [fifty-four and my partner was ended [inaccruate] or ended.[accurate] ended? [accurate]*
25	[sí. terminó. y mi compañero terminó. [engaged but not working with Jessica and Paty]	Joel	*[yes. ende.d [accurate]and my partner ended. [engaged but not working with Jessica and Paty]*
	--		
	al final del juego el resultado fue que yo terminé con fifteen.	Joel	*at the end of the game the result was that I ended with fifteen.*
	quince.	Brad	*fifteen.*
30	quince. y mi compañero terminó	Joel	*fifteen. and my partner [masculine] ended.*
	compañera. ella es compañera.	Brad	*partner. [feminine] she is a partner. [feminine]*
	terminó con veinticuatro. así que en total teníamos treinta y nueve.	Joel	*ended with twenty-four. therefore our total was thirty-nine.*

(Joel, Paty and Jessica, Transcript, November 24, 2014)

Peer Reading

During peer reading activities in Phase 1, Joel appeared to enjoy playfully interacting with his peers. However, as with the other focal students, his linguistic production was limited to short phrases and words mainly related to interpersonal social functions. In Excerpt 5.17, Joel and Susan talked about the digital book that they were going to choose to read. In lines 1-2, Joel expressed his desire to dance. Although Susan rejected this suggestion (line 3), Joel was not discouraged and reemphasized his intention to have fun during the musical introduction to their book (line 4). A few minutes later, Joel used his Spanish to explain to Susan that he already saw the movie made from the book they were reading (lines 6-8). However, there was very little interaction for the entire reading time and most of it was in English or in Spanish with limited use of complex forms.

Excerpt 5.17.

1	when the song comes up we're going to dance!	Joel	
	what? no.	Susan	
	well I̲ am going to.	Joel	
	--		
5	oh! I love this one.	Susan	
	oh! yo ve. yo vio este um. um. película y es un película también. yo vio.	Joel	oh. *I see. I saw this. um. um. movie and it is a movie too. I saw.*

(Joel and Susan, Transcript, October 30, 2014)

However, as the study progressed, Joel began to use his Spanish more and especially with students that he considered authentically bilingual such as Diego. In Excerpt 5.18, Joel called to Diego from across the room in Spanish and invited him to sit in a certain location as they completed the reading tasks (lines 1-4). After finding a location, the students began to ask and answer the reading questions. Diego asked Joel about his connections to the reading (line 7) and then accepted the fact that Joel did not have one. However, Joel suddenly remembered that he had gone fishing with his father the week before (lines 10-11). The utterance is missing the particle (line 10) and "fishing"

is expressed in English (line 11), but quickly corrected by Diego (line 12). "Cachamos" was used to explain that they caught a huge fish (instead of the more standard "pescamos"). Joel appeared to be more comfortable (especially with Diego) in sharing personal details using different words and structures that could be considered part of his emerging collection of linguistic repertoires.

Excerpt 5.18.

1	ok. Diego. dónde estás? Diego. Diego. viste Diego? hola Diego. podemos ir allá? aquí duelen mis pies.	Joel	*ok. Diego. where are you?Diego. Diego. did you see Diego? hi Diego. can we go there? my feet hurt here.*
5	vamos aquí. vamos aqui. aquí.	Diego	*let's go here. let's go here. here.*
	aquí. no. aquí.	Joel	*here. no. here.*
	--		
	no tienes un conexión?	Diego	*do you have a connection?*
	no.	Joel	*no.*
	ok.	Diego	*ok.*
10	oh, oh, sí! que hm. semana pasado yo y mi papá fuimos a fishing.	Joel	*oh, oh, yes! the. hm. last week I and my dad went fishing.*
	pescando?	Diego	*fishing?*
	pescando y hm. vimos un gran pez y lo cachamos.	Joel	*fishing and hm. we saw a great big fish and we caught it.*
15	oh! ok. ahora yo soy el alumno.	Diego	*oh! ok. now I am the student.*
	y yo soy el papá!	Joel	*and I am the dad!*

(Joel, Transcript, December 9, 2014

At the end of the study, Brad mentioned that he felt that Joel had particularly benefited from the language-focused differentiated instruction. The data suggests, however, that the benefits may not be especially apparent given the short amount of time of the study. However, Brad's feeling that Joel was responding well to the attention to language may represent Brad's own deeper understanding of Joel's bilingual resources. By slowly expanding Joel's investment in his linguistic repertoires and his ability to

participate using his language resources, he will hopefully continue to explore his emerging bilingual identity.

Joel's Final Interview

In Excerpt 5.19, Joel described why he valued learning Spanish and wanted to continue in the program. Because he spoke less than other students, I tended to provide options for him during the interview. The suggestions were based on information that he had provided me at other times during the study. However, his answers were informed by my thoughts and may signal his interest in confirming what he felt I wanted him to say. In lines 8-12, Joel expressed his concern for young children who don't speak Spanish but want to. This may refer to his own desire to have the communicative skills, like his brother (line 29), to participate authentically in the Spanish-speaking world. Joel's brother was also a student at the school and was one year older than him. (It is unclear why Joel mentioned that his brother was in third grade since he was actually in fourth grade at the time of the study.)

Excerpt 5.19.

1	entonces te gusta estar en la escuela con inglés y español o te gustaría más estar en una escuela de inglés?	Amy	*so do you like to be in a school with English and Spanish or would you like to be in an English only school?*
5	escuela de español.	Joel	*a Spanish school.*
	te gusta estar en escuela de español? y por qué quieres aprender inglés y español?	Amy	*you like to be in a Spanish school? and why do you want to learn English and Spanish?*
10	porque tu puedes aprender dos idiomas y si tu eres un niño chiquito y tu no sabes español, tu puedes hacer en la escuela y aprender español.	Joel	*because you can learn two languages and if you are a little kid and you don't know Spanish, you make at school and learn Spanish.*
	Y tu mamá habla español?	Amy	*and your mom speaks Spanish?*
15	sí.	Joel	*yes.*
	pero contigo habla inglés?	Amy	*but with you she speaks*

			English?
	sí.	Joel	*yes.*
	más inglés o mitad?	Amy	*more English or half and half?*
	más inglés.	Joel	*more English.*
20	más inglés? y tu papá habla español pero está en México?	Amy	*more English? and your father speaks Spanish but he is in Mexico?*
	sí.	Joel	*yes.*
	está en México. y tus abuelos están en México?	Amy	*he is in Mexico? and your grandparents are in Mexico?*
25	no. pero todo, nomás mi mamá habla en inglés y todo mi familia habla en español.		*no. but everyone, only my mom speaks English and all of my family speaks Spanish.*
	español? y quieres hablar muy bien español para hablar con ellos?		*Spanish? and you want to speak Spanish well to speak with them?*
30	sí. nomás mi hermano sabe mucho español, porque él está arriba, en tercero.		*yes. only my brother knows a lot of Spanish because he is higher up, in third.*

(Joel, Transcript, December 16, 2014)

Abdul: Interpersonal Work, Intertextuality and Verbal Play

Abdul's verbal interactions with his peers tended to be focused both on achieving the goal of each task, but not at the expense of interpersonal relationships. Abdul often switched to English in order to enhance relationship building during his interactions and worked to developed shared texts from which the classroom community could draw (Kovalainen & Kumplainen, 2005; Trester, 2012). By promoting intertextual language play, Abdul was able to participate more in Spanish with his peers as well as act as an agent facilitating the distribution of more complex texts that provided his classmates with exposure to increasing more complex functional language. Throughout the study, Abdul appeared to collect a number of words, phrases and functional language skills that

allowed him to develop his relationships and play with language in both English and Spanish, embracing both his "participation rights and responsibilities" (Kovalainen & Kumpulainen, 2005, p. 215). He may have been particularly attracted to playful forms and functions that allowed him to enact intertextual use of alternative voices and personas that would add joy to the activity.

Math Games

During Phase 1, it was apparent that Abdul had developed a reputation for prefering to use English. Many students mentioned to me that he should not participate in the study since he never spoke Spanish. Also, the teacher mentioned that Abdul would be a good participant since he had acquired above grade-level reading abilities, but less than average oral proficiency. In Excerpt 5.20, Abdul interacted with Xochitl and Annika, an African American girl with low levels of proficiency, during a math game. Although the students began the game using the typical language of Phase 1 (numbers and limited functional language), both Annika and Abdul quickly switched to English in order to express their thoughts and develop the interpersonal relationship and meet their ideational goals.

In line 1, Xochitl exclaimed that she won (gané) using a first person past tense verb form. Abdul supported her assertion (line 2), echoing the same form (inaccurately), first person past tense with the pronoun "ella" (she). After this, Xochitl and Annika began to argue about whether or not Xochitl cheated. Abdul attempted to keep the peace by inviting the girls to play another game (line 3). Annika used her English skills to defend her position (lines 6-8) and then switched back to Spanish. Abdul tried again to deflect the arguments and decrease the tension by pointing out, in English, that other students were building a house with the material instead of playing the game (line 11). Xochitl affirmed this distraction and began to sing into the recorder, apparently happy to record the other groups' digressions (lines 12-13). Later, Abdul began to talk to the recorder and to his peers in English about his relationship to the recorder (lines 14 to 18). Abdul's ability to use playful language to facilitate relationships was noticible throughout all of his interactions.

Excerpt 5.20.

1	gané!	Xochitl	*I won!*
	oh. ella gané!	Abdul	*oh. she won!*
	[Xochitl and Annika argue]		
	vamos a jugar otra vez.	Abdul	*we are going to play again.*
5	no, pero no una, pero solo yo van a hablar en inglés porque yo van a decir algo. um. <u>we're going to keep on playing but we're not going to put these away</u>. ahora necesita hablar en español. yo pienso yo tengo más de once?	Annika	*no. but no one, but only I am going to talk in English because I am going to say something.* <u>we're going to keep on playing but we're not going to put these away</u>. *now we need to speak in Spanish. I think I have more than eleven.*
10			
	<u>look at what they're doing!</u>	Abdul	
	ellos están haciendo otra casa. están haciendo una casa. [singing into the microphone]	Xochitl	*that are making another house. they are making another house. [singing into the microphone]*
15			

	<u>yes. I was right. oops. it's ok my little fellow. hey what are you looking at? it's my little fellow. I call it my star fellow. because he helps me be better than anybody.</u>	Abdul	
20			

(Abdul, Annika & Xochitl, Transcript, October 24, 2014)

Throughout Phase 2, Abdul appeared to collect words and phrases in Spanish that he considered useful in developing relationships. He would use these phrases throughout classtime and at recess with students and the teacher. Enthusiastic expressions of phrases such as, "qué lastima" (too bad), "ni modo" (oh well), and "fenomenal" (phenomenal) could be heard in the background throughout each recording regardless of the location of the recorder. In Excerpt 5.21, Abdul expressed his intention to shuffle the cards by playfully mixing Spanish phrasal future tense with an English verb (to shuffle). However, he then added in a new verb in Spanish "barajar" (to shuffle) that was discussed during a

recent large group discussion. Instead of conjugating the verb, however, he used the known verb "hacer" in future tense and included barajar on the end of it (lines 1-3). In lines 10 and 11, Susan replied using first person present tense. Since she struggled to conjugate present tense verbs correctly, it is surprising that she became aware of her accuracy. However, after less than five minutes of play, both Abdul and Susan appear to return to old patterns with Abdul exclaiming that he was winning using third person present tense and Susan replying that she knew it was her turn in third person present tense as well (line 17). While the functional verbal play appeared to engage Abdul, it may also improve his accuracy to greater and lesser extents throughout his interactions. Now that he he had access to the functional language that he needed to both express his ideas and build the relationship with his partner, he began to expand his linguistic repertoires in Spanish.

Excerpt 5.21.

1	eres un bueno jugador! yo voy a hacerlo con esto. yo voy a hacer shuffle. yo voy a hacer baraja.	Abdul	*you are a good player! I am going to do it with this. I am going to do shuffle. I am going to do shuffling.*
	barajar.	Susan	*shuffle.*
5	yo no sé como hacerlo.	Abdul	*I don't know how to do it.*
	es. mas. bello.	Susan	*it's. more beautiful.*
	ok. ahora es tu turno. no. Susan. ahora yo digo. eres un bueno jugador!	Abdul	*ok. now it is your turn. no. Susan. now I say. you are a good player!*
10	yo puedo ir a algún lado? no. no puedo.	Susan	*can I go somewere now? no. I can't.*
	[4:10 minutes of playing]		
	yo está ganando!	Abdul	*I am winning!*
	no yo.	Susan	*no, I am.*
15	no. cuenta las cartas. uno, dos, tres, cuatro, cinco, seis, siete! tengo siete. tu turno. hace la ocho.	Abdul	*no. count the cards. one, two, three, four, five, six, seven. I have seven. your turn. it makes eight.*

sí sabe.	Susan	*I know.*

<div align="right">(Abdul and Susan, Transcript, November 26, 2014)</div>

While Abdul increased his investment in building relationships and verbal play in Spanish, he also shifted in his style of presenting during large group reports. In Excerpt 5.22, Abdul expressed the results of his math game using a newly complex language structure (lines 1-3 and 5-6). The teacher not only encouraged him through showing how impressed he was with the total amount (line 4), but also used Abdul's favorite phrase, "fenomenal" to congratulate him at the end of his statement (line 7). It is also important to note that the teacher and I had changed the way students reported out by asking them to report on their totals instead of telling who won. We were hoping that by decreasing the level of concern over winning, we could decrease the amount of arguing over who won each game and also increase the variety of functional language used during Math Games.

Excerpt 5.22.

1	el resultado fue que yo saqué ciento cincuenta y seis y mi compañero sacó ciento ochenta y dos.	Abdul	*the result was that I earned a total of one hundred and fifty-six and my partner earned one hundred and eighty-two.*
	de verdad? todo eso?	Brad	*really? all of that?*
5	así que en total teníamos trescientos treinta y ocho.	Abdul	*therefore, we had a total of three hundred and thirty-eight.*
	fenomenal!	Brad	*phenomenal!*

<div align="right">(Abdul large group, Transcript, November 25, 2014)</div>

Peer Reading

During Phase 1, Abdul spent most of his peer reading time reading aloud or talking about topics of interest such as art or music, and singing. On November 6, for example, Abdul and his partners, Cory and Jason (a White student with intermediate proficiency levels), spent seventeen minutes reading silently, discussing their drawings, and playing "Simon Says." Abdul was responsible for over 95% of the utterances.

In Excerpt 5.23, Abdul began the interaction in English talking about books, as was expected (lines 1-2). Cory, however, quickly switched to English and asked about the audio recorder (lines 4-5). Abdul explained in Spanish how he got the recorder and attempted to refocus the conversation on the reading objective (lines 5-7). Cory, however, clarified that he wanted to read silently (line 6). Undeterred, Abdul read aloud, discussed the reading quickly with Cory and then asked Cory to read (lines 11-14). This may imply that Abdul was eager to interact with Cory in Spanish and if there were more structure or support, would choose to interact extensively with his peers during this subject. Cory, however, switched back to English and began to complain about reading non-fiction (lines 15-17). Abdul, perhaps now concerned that Cory would cause a problem, also switched to English and clarified that they had to read non-fiction (line 19). Cory expressed dismay (line 18) and Abdul then encouraged him to ask the teacher. Although Abdul knew the expectation, he provided Cory with options. When Cory expressed an intention to lie to the teacher, Abdul clarified that they would need to go to the library if they ran out of non-fiction books to read. This adept relationship work allowed Abdul to work interpersonally and ideationally, while showing empathy for Cory's wishes but at the same time clarifying and reinforcing the teacher's expectations and classroom procedures. This complicated relationship work would most likely not have functioned as well if it took place in Spanish. This example illustrates the importance of building up students' linguistic repertoires in a variety of functional categories. Also, it is important for researchers working with academic language development to remember that students are simultaneously using language to mediate *both* learning and interpersonal relationships. Providing students with purely academic language supports, therefore, will not meet their communication needs.

Excerpt 5.23.

1	oh. aquí está mi libro. este libro es muy bueno.	Abdul	*oh. here is my book. this book is really good.*
	how did you get that? [referring to the microphone]	Cory	
5	Señora Amy dije que puede tenerlo otra vez. yo voy a leer esto y tu puedes leer esto.	Abdul	*Ms. Amy said that I could have it again. I am going to read this and you can read that.*
	yo voy a leerlo en mi mente.	Cory	
	este? mañana?	Abdul	*this? tomorrow?*
10	no. yo voy a leerlo en mi mente.	Cory	*no. I am going to read in my mind.*
	ok. voy a leer esto. yo voy a leer esto. esto está muy oscuro. (reads) ay! qué susto! es tu turno Cory. a ver, esto. quieres leer ésto?	Abdul	*ok. I am going to read this. I am going to read this. very dark. ay! how scary! it's your turn Cory. let's see. this. do you want to read this?*
15	should we ask him if we can read something else? these are boring. I want to read fiction. I don't want to read nonfiction.	Cory	
	I think we have no choice but to.	Abdul	
20	ugh. [groans]	Cory	
	go ask him. ask him. [pronounced aks]	Abdul	
	you!	Cory	
	I already know. I think it's no ficcion all week.	Abdul	
25	I'm going to tell that him we don't have any more.	Cory	

	then we got to go in the library and get some.	Abdul	

(Abdul and Cory, Transcript, October 14, 2014)

During Phase 2, Abdul used much more language to express a greater variety of academic and social functions during peer reading time. However, at times the interactions were stilted and not facilitating authentic interpersonal or ideational work. Nevertheless, as can be seen in Excerpt 5.24, the students did interact about the reading and were using a greater variety of lexical and linguistic structures as they made predictions, encouraged each other, and summarized their reading (lines 1 to 13). Towards the end of the reading time, however, the students began to notice that they had different papers to help them structure their oral reports. Students did not appear to notice this during Math Games, perhaps due to the newness of the activities. However, now that the students had been working on oral language for almost a month, they were beginning to notice the differentiated nature of certain items. This appeared to be troubling to them as can be seen in lines 14 to 20. Abdul asked a number of students if their papers were different (lines 17-18) and Xochitl went directly to the teacher (lines 19-20) after confirming with another student that the papers were indeed different for different students (lines 14-15). While it is unclear why this fact was concerning to the students, it is important to keep in mind the anxiety that non-transparent instructional strategies can cause in students.

Excerpt 5.24.

1	perfecto! [after Xochitl reads]	Abdul	*perfect!*
	qué amable!	Xochitl	*that's nice.*
	yo leí. [after Abdul reads]	Abdul	*I read.*
	gracias.	Xochitl	*thanks.*
5	qué aprendimos en esta página?	Abdul	*what did we learn on this page.*
	descubrimos que alrededor hay colores en todos lados.	Xochitl	*we discovered that around us there are colors everywhere.*
	qué supones que viene en esta parte de la lectura?	Abdul	*what do you suppose will come in this part of the reading?*
10	qué información vendrá en esta	Xochitl	*what information will come on*

151

	página?		*this page?*
	las comunidades donde llenas de color.	Abdul	*the communities where you fill with color.*
	--		
15	Nancy. tu tienes diferente tu y Jason?	Xochitl	*Nancy. doy ou have a different page than Jason?*
	sí. yo tengo este y él tiene diferente	Nancy	*yes. I have this one and he has a different one.*
	yo tengo A. yo tengo diferente. Jason. yo tengo esto.	Abdul	*I have A. I have a different one. Jason. I have this one.*
20	Señora Amy. yo y Abdul tenemos diferentes papeles.	Xochitl	*Señora Amy. Abdul and I have different pages.*

(Abdul, Xochitl, Nancy and Jason, Transcript, December 5, 2014)

Abdul's Final Interview

Abdul did not have exposure to Spanish outside of the immersion school, but he stated that he valued bilingualism. In Excerpt 5.25, he described how he especially enjoyed the idea that he would be able to understand the language when other people wouldn't suspect it. His investment in learning Spanish supports Paris' (2010) call for efforts that "foster language learning and interethnic relationship in our shifing communities and schools" (p. 139). Paris uses ethnographic data and social language data to show how African American students desire "access" to Spanish. When Abdul started to use the new textual resources available to him to negotiate his interperonal relationships, he began to use language as a tool for solidarity.

Excerpt 5.25.

1	y te gusta aprender en español?	Amy	*and do you like to learn in Spanish?*
	sí.	Abdul	*yes.*
	sí? y por qué quieres aprender español?	Amy	*yes? and why do you want to learn Spanish?*

5	para hablar dos idiomas.	Abdul	*to learn two languages.*
	y por qué quieres hablar dos idiomas?	Amy	*and why do you want to speak two languages?*
10	cuando un persona está hablando algo. está hablando en español. le puede decir algo en español y ello no va a saber que yo puede hablar en español.	Abdul	*when a person is saying something. [he] is speaking in Spanish. I can say something in Spanish and he won't know that I can speak in Spanish.*
15	oh! vas a entender. y hay algo que a veces no te gusta de aprender en español ó siempre te gusta?	Amy	*oh! you will understand. and is there anything that at times you don't like about learning in Spanish or do you always like it?*
	siempre te gusta!	Abdul	*I always like it!*

(Abdul, Transcript, December 16, 2014)

Joel and Abdul were interviewed together. Since they both appeared to enjoy language play and often used a playful mix of languages to express their thoughts and feelings, their interview tended to use a combination of Spanish and English phrases. Excerpt 5.25 shows how they aligned themselves with me as a teacher (lines 1 to 2) and then expressed the reasons why they enjoyed working to expand their abilities in both English and Spanish. Abdul expressed the high value he placed on multilingualism and connected bilingualism to the ability to make friends in different contexts (lines 6 to 11). Joel echoed the importance of community building and relationships as related to multilingualism. Joel emphasized his desire to learn *all* the languages (lines 24 to 25). Although the questions were always related to learning Spanish, Joel, in particular, mentioned learning English as well as a goal (line 20 to 21). However, he expressed his need to learn Spanish as well during the part of the interview that was conducted in English.

Excerpt 5.25.

1	y yo quiero que tu es mi teacher .	Joel	*and I want you to be* my teacher.
	yo quiero que tu es mi maestra.	Abdul	*I want you to be my teacher.*
	sí? oh! Ustedes son muy lindos.	Amy	*really? oh! you are both sweet.*

5	why do you like learning two languages?	Amy	why do you like learning two languages?
10	because you can talk to people in Spanish and in English. [in English] I thought. hola, hola amigo! hola amigo. yo no sabía que hablas en ingles. I mean. en español.	Abdul	because you can talk to people in Spanish and in English. I thought. *hi, hi friend! hi friend. I didn't know you spoke English.* I mean *Spanish.*
	so it's kind of cool?	Amy	
	sí.	Abdul	*yes.*
15	yeah. you should be proud! that's awesome. you Joel?	Amy	
	yo. (2.0)	Joel	*I. (2.0)*
	you can talk in English now if you want.	Amy	
20	I want. I like doing stuff with you and doing math and learning Spanish and more English.	Joel	
	and why do you like learning two languages?	Amy	
25	because. I like learning all the languages.	Joel	
	cool! do you want to learn more languages?	Amy	
30	yeah. and i like the two languages because this makes me learn more about Spanish and English.	Joel	
	did you ever wish you were in a	Amy	

school that was only English or not?	
no. i need to learn Spanish too.	Joel

<div align="right">(Joel and Abdul, Transcript, December 16, 2014)</div>

Susan: Awareness through Intertextuality

Susan's Spanish language use included many "immersionese" errors that are typical of one-way immersion students (Day & Shapson, 1996; Genesee, 2004; Harley, 1992; Lyster, 2007; Swain, 1998). She used non-specific lexical items, anglecized syntactical structures, and overgeneralized language patterns. She tended to use third person plural when speaking about herself. However, she also responded positively to increased awareness of linguistic forms and functions. She appeared to enjoy using alternative voices and personalities to embody these new forms and ways of speaking. Like Abdul, Susan intertextually echoed language forms that allowed her to play with language and assisted in the development of additional linguistic repertoires. Similar to Joel and Katrina, however, Susan's linguistic awareness appeared to increase in response to the increased attention to language. Similar to all of the students, Susan was negotiating her identity as an "authentic" bilingual member of the classroom community and so, perhaps, the increased attention to language allowed her an opportunity to broker her membership through adapting the "code" that was provided for her.

Math Games

During Phase 1, Susan exhibited numerous potentially fossilized linguistic forms. She not only used inaccurate lexical and syntactial items, but justified their use when questioned. As opposed to Abdul, who searched for functional language to do interpersonal work, Susan tended to remain in a limited number of functional categories for communication. She would use her inaccurate fossilized linguistic forms to express her ideas and build relationships trusting that her peers and teachers would understand her intentions. Excerpt 5.26 illustrates this ideational and interpersonal work using her fossilized textual resources. In line 1, Susan uses third person present tense to express the score that she has. While Katrina appears to be more interested in who can talk into the recorder (lines 4-5 and lines 12-13), Susan maintained her focus on the score and whose turn it was (lines 7-8 and lines 14-16). She does not attempt to discuss any topic that

strays from her linguistic comfort zone and she continually uses inaccurate linguistic forms.

Excerpt 5.26.

1	yo tiene veintidos.	Susan	*I have [inaccurate] twenty-two.*
	no.	Katrina	*no.*
	sí.	Susan	*yes.*
5	cinco, tienes cinco. vamos a hablar las dos. ok?	Katrina	*five, you have five. let's talk both of us. ok?*
	ok! ocho. uno, dos, tres, cuatro, cinco, seis, siete, ocho. yo tiene treinta y cinco. ok. tu no Katrina?	Susan	*ok! eight. one, two, three, four, five, six, seven, eight. I have [inaccurate] thirty-five. ok. you don't Katrina?*
10	cinco, seis. seis! uno, dos, tres, cuatro, cinco, seis. yo. tu no Susan.	Katrina	*five, six. six! one, two, three, four, five, six. I. not you Susan.*
	gracias Katrina.	Susan	*thanks Katrina.*
	cuando es tu turno tu puedes hablar. cuando es mi turno yo puedo hablar.	Katrina	*when it is your turn you can talk. when it is my turn I can talk.*
15	yo tiene dos y dos. es cuatro. yo tiene cuarenta y cuatro. Katrina. es tu turno ahora.	Susan	*I have [inaccurate] two and two. I have forty-four. Katrina. it's your turn now.*

(Susan and Katrina, Transcript, October 27, 2014)

Although this pattern shifted significantly during Phase 2, Susan continued to revert to the fossilized forms at times when she left the targeted functional category. In Excerpt 5.27, however, Abdul and Susan played Math Games for over 15 minutes without conflict, using the suggested functional language, and with accurate use of first person present tense.

Excerpt 5.27.

	fenomena:l! fenomena:l! fenomena:l!	Abdul	*pheno:menal! pheno:menal! phenomenal!*

yo tengo once	Susan	*I have eleven.*
[singing] diez!	Abdul	*[singing] ten!*
mi turno. oh! fenomenal!	Susan	*my turn. oh! phenomenal!*
oh. yo no dije animarte. perfecto. fabuloso. felicidades.	Abdul	*oh. I didn't say to encourage you. perfect. fabulous. congratulations.*
y tambien maravilloso! yo tengo diez.	Susan	*and also marvillous! I have ten*
fantástico!	Abdul	*fantastic!*
ok. tu turno	Susan	*ok. your turn.*
diez!	Abdul	*ten!*
me encantó como jugaste.	Susan	*I loved how you played!*
no ha terminado el juego. oh sí, sí si, sí.	Abdul	*the game hasn't finished. oh yes, yes, yes, yes.*
yo tengo cuarenta!	Susan	*I have forty!*
oh. yo tengo cincuenta.	Abdul	*oh. I have fifty.*

(Susan and Abdul, Transcript, November 19, 2014)

Peer Reading

During Phase 1, Susan like other students participated in limited interaction with her peers. During Phase 2, Susan reverted to some potentially fossilized "go to" forms despite her shift in languag use during Math Games. However, her language complexity also increased, which could account for the new issues with accuracy that Susan presented. In Excerpt 5.28, Katrina began to make a prediction (line 1) about the reading and Susan appeared to express frustration and ordered Katrina to talk, using the third person present instead of a command (line 1). Katrina asked Susan to make a prediction (lines 3-5) and then Susan attempted a fairly complex utterance, shifting between accurate and inaccurate forms (lines 6-8).

Excerpt 5.28.

1	vamos a descubrir.	Katrina	*we are going to discover.*
	Katrina! dice!	Susan	*Katrina. say!*

5	qué crees que vamos a encontrar. qué supone que viene en esta parte de la lectura?	Katrina	*what do you think we are going to. what do you suppose comes in this part of the reading?*
	es posible que diga que. digan que van a como no va a el siguiente día y el papá dice eso.	Susan	*it's possible it will say that. they will say that they are like not going to go the next day and the father says that.*

(Susan and Katrina, Transcript, December 4, 2014)

Excerpt 5.29 presents an example of Susan's oral report to the large group. While Annika struggled to present her report, and even used functional phrases from the Math Games portion of the study, Susan was able to get her meaning across with limited difficulty despite her potentially fossilized verb forms.

Excerpt 5.29.

1	al final del juego dije.	Annika	*at the end of the game I said.*
	no juego. estás pensando en matemáticas. al final. lée lo que está en la hoja.	Brad	*not game. you are thinking about math. at the end. lée lo que está en la hoja.*
5	al final yo dije que=	Annika	*at the end I said=*
	=que la información.	Brad	*=that the information.*
	aprender.	Annika	*to learn.*
	aprendida.	Brad	*learned.*
	de los sub=	Annika	*from the sub=*
	=títulos.	Brad	*=titles.*
	subtítulos fue. [los patrones.	Annika	*subtitles was. [the patterns.*
	[sobre los patrones. aplauso de paz para Annika. Susan?	Brad	*[about the patterns. a silent applause for Annika. Susan?*
	al final yo le indiqué a mi compañero que la información que aprendí fue de los autobús.	Susan	*at the end I indicated to my partner that the information I learned was about the bus.*
	ok, aplauso de paz.	Brad	*ok, silent applause.*

(Susan and Annika during large group, Transcript, December 4, 2014)

There was evidence that Susan's language not only shifted during formal reporting, but also during more informal turn-and-talks during the closing portion of the class. In Excerpt 5.30, Susan interacted with Abdul and Timothy during the final minutes of reading time. While Abdul exclaimed in English that he didn't have a partner (lines 1-2), Susan offered to include him in her group (line 3). However, he declined (line 4) and then Susan went on to describe to Timothy her connections to the reading (lines 5-10). During this utterance, Susan correctly used both an infinitive (terminar), first person past tense (expliqué, quería). It might be that Susan, as argued by Dufva and Alanen (2005, p. 104), by being exposed to more complex linguistic registers and styles, began to develop her own evolving theory of language.

Excerpt 5.30.

1	I'm not with nobody but myself. yay!	Abdul	I'm not with nobody but myself. yay!
	you can be with me and Timothy.	Susan	you can be with me and Timothy.
	no. you guys are tough.	Abdul	no. you guys are tough.
5 10	para terminar yo expliqué unas conexiones. cuando yo no quería y cuando sí quería. um. sí. eso. para terminar yo expliqué unos con mis. explicando cuando yo no quería y cuando sí quería.	Susan	*in conclusion I explained some connections. when I didn't want to and when I did want to. um. yes. that. in conclusion I explained some to my. explaining when I didn't want to and when I did want to.*

(Susan and Abdul, Transcript, December 8, 2014)

Susan's Final Interview

Susan was a fan of immersion education, as described below, and language learning in general. However, she also had very simple goals in terms of how to improve her education that may imply that she was content with her educational context. When asked what her perfect school would look like, she responded with the text in Excerpt 5.31. Similar to Joel, it appears that Susan was eager to answer in a manner that would please me, the interviewer with whom she has now established a relationship. In line 20, however, Susan chose to assert her bilingual identity, although not connect to Spanish,

through her identifying an Italian grandfather. While Susan was not from a SHL household, she was using her agency to align herself with a history of bilingualism. Excerpt 5.31.

1	vamos a pensar en todas las escuelas del mundo. si pudieras escoger cualquier tipo de escuela, qué estilo de escuela escogerías y por qué? qué tipo de clases tendrías, sería de inmersión ó no, qué juegos habría en el recreo?	Amy	*think about all of the schools in the world. if you could choose any type of school, what type of school would you choose and why? what type of classes would you have? would it be an immersion school or not? what games would there be at recess?*
5			
	de inmersión de Italian , porque mi papá great great abuela es de ahí.	Susan	Italian [English] *immersion. because my father's great great grandfather is from there.*
10	es de dónde?	Amy	*where is he from?*
	de Italy , Italia. y yo quiero hacer de Italy cuando yo crecía .	Susan	*from* Italy [English], *Italy [Spanish]. I want to make/be from* Italy [English] *when I grew/grow up.*
	muy bien! y qué juegos habría en el recreo si pudieras hacer cualquier cosa?	Amy	*great! and what games would there be during recess if you could do anything?*
15			
	yo no sé. de qué cosa quieres?	Susan	*I don't know. what do you want?*
	no sé. qué cosa quieres tú? qué sería tu fantasía en recreo?	Amy	*I don't know. what do you want? what would your fantasy be at recess?*
	yo quería hacer "four square" . cuatro esquinas.	Susan	*I wanted to have* "four square" [English]. *four square [Spanish].*
20			

(Susan, Transcript, December 16, 2014)

     Susan shared the least amount of her personal thoughts and feelings during the end-of-study interview. However, Susan, like Jessica, appeared to be very subject-area

achievement focused (vs. interpersonal achievements). In Excerpt 5.32, she described her pride at knowing more than the older students in the school. While Susan's accuracy tended to improve throughout the study, her discourse style still included a number of creative syntactical maneuvers to express her ideas. Because Susan responded so well to language-focused instruction, especially to corrective feedback, methods recommended for integrating language and content (Lyster & Saito, 2010; Spada & Lightbown, 2008) may be particularly affective with students, such as Susan, whose language development is not as integrally woven together with their cultural and academic identity.

Excerpt 5.32.

qué te gustó y qué no te gustó?	Amy	*what did you like not like?*
yo le gusta el mate. porque los niños de como cuarto y quinto y tres y, no nos, no sabe sensacional y estupendo. y yo piense que es muy divirtido hacer eso con tu .	Susan	*I like math. because the children in like 4th and fifth and third grade a, the don't (understand) us, don't know sensational and stupendous. I think that it is very fun to do this with you.*

(Susan, Transcript, December 16, 2014)

Summary

Chapter 5 provides empirical evidence of the interactional moves that facilitated a shift in each focal student's language development. Questions of authenticity, particularly for SHL students, appeared to trigger increased linguistic reflection that then led to increased awareness of how language resources can be used both for interpersonal and ideational purposes. By emphasizing the connections between language and content, as well as language and identity, the value of bilingual linguistic repertoires increased. Increased linguistic awareness, tied to the tension of contesting and enacting authentication moves, may have provided unexpected affordances for language learning and exploration among emerging bilingual students. Playful intertextuality of both memorized chunks and creative combinations of newly learned words and phrases, however, appeared to provide students with access to clearly defined participant structures as well as an ever increasing repertoire of prior texts from which to draw. These intertextual tools, combined with safe spaces, allowed for increased peer

interaction that was able to move students from concrete interpersonal experiences towards teacher-guided reporting activities. Together, authenticating moves and an increased ability to draw on shared texts appeared to mediate changes in students' classroom language practices. Chapter 6 will explore similar themes from the teacher's perspective.

CHAPTER 6: LEGITIMATION OF TEACHING PRACTICE

Throughout the study, the classroom teacher and I worked together to explore language-focused differentiated instruction. All of our interactions began with a short interview and turned into work sessions that were recorded and transcribed. The analysis of those transcriptions is presented in this chapter in order to answer the questions, "How does an immersion teacher's characterization of linguistic diversity and differentiation change during a period of intensive reflective work related to models of differentiation?" and, "How is this change reflected in practice?"

Teacher and Researcher Legitimation of Practice

The transcriptions of those recordings were analyzed using constructs from interactional sociolinguistics including "strategic essentialism," "adequation," and "distinction." Interactional research has continued to expand our knowledge base related to specific discourse strategies used by teachers and students in the classroom, while avoiding essentialism of groups and patterns. Essentialism has been defined as, "the position that the attributes and behavior of socially defined groups can be determined and explained by reference to cultural and/or biological characteristics believed to be inherent to the group" (Bucholtz, 2003, p. 400). However, Bucholtz (2003) has argued for the validity of participant use of *strategic* essentialism when the aim is, "to enable scholarly activity, to forge a political alliance through the creation of a common identity, or to otherwise provide a temporarily stable ground for further social action" (p. 401). Throughout the study, our discussions about linguistic diversity and language-focused differentiation included concepts related to the strategic essentialism of students based on their linguistic proficiency and home language background. By overly simplifying linguistic categories, we were able to work towards a larger goal of facilitating student achievement that would have been impossible if we had considered the infinite variables affecting the learning of each student. We tended to place students in categories and then discuss them using terms and ideas that were generalized to all students in that particular category.

In order to talk about the complexity related to linguistic diversity and differentiated instruction, we used discourse strategies that minimalized differences between students in the same category and maximized differences between groups. This

interactional work has been called "adequation" and has been contrasted with "distinction." Researchers (Bucholtz & Hall, 2005) have described "adequation" as the practice of positioning groups as:

> sufficiently similar for current interactional purposes. Thus, differences irrelevant or damaging to ongoing efforts to adequate two people or groups will be downplayed, and similarities viewed as salient to and supportive of the immediate project of identity work will be foregrounded (Bucholtz & Hall, 2005 p. 599)

By enacting adequation techniques throughout the study, we were able to talk about extremely complex phenomena. These adequation tools, however, eventually loosened which allowed us to see more subtle differences between students' linguistic needs and allowed us to better design language-focused supports that would potentially facilitate their language development. It also allowed us to deepen our understanding of each essentialized group, although that was not always the case. "Distinction" mechanisms were also apparent in these transcripts. According to Bucholtz and Hall (2005), while adequation suppresses difference *within* essentialized categories, distinction suppresses similarities *between* categories that "might undermine the construction of difference" (p. 600).

Aspects of adequation and distinction allowed us to legitimize differentiating instruction for particular essentialized groups as represented by each focal student. This legitimation process (as enacted during our interactions) was analyzed using van Leeuwen's concepts of legitimation and modality (van Leeuwen, 2007, 2008). Legitimation explains speakers' attempts to answer the questions, "Why should we do this?" and "Why should we do this in this way?" (p. 93). Modality describes the degree to which a message is meant to portray urgency or interest. Legitimation constructs were used as a tool to ascertain the ways that the classroom teacher and I justified our instructional decisions regarding how we planned to differentiated language instruction throughout the study. Four key aspects of van Leeuwen's concept of legitimation were considered (as described in Leckie, Kaplan & Rubinstein-Ávila, 2012):

> (a) authorization—legitimation by reference to tradition, custom or law, (b) moral evaluation—legitimation by reference to a value system, (c) rationalization— legitimation by reference to the goals and uses of institutionalized social action,

and (d) mythopoesis—legitimation through narratives whose outcomes include rewards and punishments. (p. 166)

Analysis is first presented that illustrate examples of our shifting conceptualization of linguistic diversity and afterwards for language focused-differentiated instruction.

Linguistic Diversity

Analysis of Brad's and my shifting conceptualizatin of linguistic diversity is presented for each focal student in the sections below.

Katrina

TWI schools typically enroll a mixture of SHL and EHL students with a range of proficiency levels. One cautionary note that has been cited in the literature involves the potential of SHL students' language skills being used as a tool for EHL bilingual development (Valdés, 1997a) while ignoring their own language learning needs. TWI programs, it is argued, do not exist in a sociocultural vacuum but instead reflect dominant power structures (de Jong & Howard, 2009; Martin-Beltran, 2010; Palmer, 2007, Valdés, 1997a).

Katrina is a SHL student with high levels of proficiency, however she could still be at risk for incomplete acquisition or Spanish language attrition. As we saw in Chapter 4, Jessica's (EHL) language was in some ways more complex and she used many lexical and syntactical forms that Katrina never used. However, at the beginning of the study, Brad did not appear concerned with Katrina's Spanish oral language development. In Excerpt 6.1 recorded at the beginning of the study, Brad expressed his belief that SHL students already "have the oral language" (line 5). Use of the participle "the" (line 5) to describe oral language implies that there is one homogeneous language that can be acquired and that the SHL students already have it. The implication would be that, therefore, they no longer needed to develop their oral language further. Brad rationalized his practice of providing visual language supports (lines 1-2) that would push EHL students primarily. Brad is presenting as "natural" the fact that SHL students do not need explicit support for their Spanish language development. "Theoretical rationality legitimizes practices by reference to a natural order of things" (van Leeuwen, 2007, p. 101). This intuitive (but false) belief that SHL students are already fully proficient in 3rd

grade was repeated often during the Phase 1 interviews by a number of different teachers (see Chapter 3 for a summary of the principal and support teacher interviews).

Excerpt 6.1.

1	yesterday during the morning meeting there's like the poster	Brad
	and it's got all the things. so home language kids like <u>Spanish</u>	
	home language kids don't necessarily <u>need</u> to look because they	
	can hear like my verbal prompt and just repeat it. they've got	
5	the oral language.	

(Brad, Interview, September 12, 2014)

Katrina, the most proficiency SHL focal student, was described in Excerpt 6.2 (recorded three weeks after our initial meeting) as a very dominant Spanish speaker (line 1). The word "dominant," although a common term in bilingual education, is an evaluative adjective that carries with it an implication that one language rules and is more influential than the other. In this excerpt, Brad legitimized his practice to counter Spanish dominance by encouraging and supporting *English* language development. He also mentioned the practice of using Katrina's language skills as a tool for other students' Spanish oral language development (lines 3-4).

Excerpt 6.2.

1	Katrina. definitely very dominant Spanish speaker at home and	Brad
	here. so much so that she'll be a kid that I really scaffold for in	
	English and encourage her to use her strong Spanish skills in	
	the room with the other kids.	

(Brad, Interview, October 6, 2014)

Toward the end of the study, however, Brad presented a more nuanced conceptualization of SHL students' language development needs and linguistic diversity overall. In Excerpt 6.3, recorded towards the end of the study, I asked him about his new practice of pulling out SHL students to push their language production (lines 1-2). He justified this shift in practice by presenting evidence about a lack of metacognitive thinking (lines 5-6) as the justification for needing to challenge students more. By using scientific terms to describe learning, Brad was using external authority (science) to rationalize his new objective of working SHL students as well on their language

development. It also appears that his categories for SHL and EHL students became less distinct as he included both EHL and SHL students' metacognitive development (lines 1-2) in his reply to my question about SHL students. While he still used the terms "native" and "non-native" (line 4) (using nature as a legitimation tool), he hedged in line 5, "whatever you want to say" which may imply that he was shifting in the conceptualization of these categories. His high modality statement in line 14, "You *really* need to challenge [their] academic Spanish" implies that he now felt strongly that it is his job to push SHL students' Spanish language development. In line 15, his use of the pronoun "we" implied that he and I could work collaboratively to address this need. However, in lines 20-21, he concluded with "I don't know." This return to low modality (implying less need for change), may signal his movement back and forth on whether this was an important goal to include in his practice. Or perhaps he was signaling that it was my turn to participate in the discussion.

Excerpt 6.3.

1	yeah. you said you can pull the students in a small group because when you were reading=	Amy
	=an article that I read said that a lot of times kids don't. like in immersion. especially native and non-native kids or L1 and L2	Brad
5	kids. whatever you want to say. miss that metacognitive thinking about where their languages and are frequently talked directly with like the conversation that we are having. you speak Spanish at home so when you're talking to Orlando, it's	
10	not hard for you. but I don't hear you challenge yourself. I don't think those kids tend to feel like my Spanish is. not arrogantly. but they realize and recognize that their Spanish abilities are greater than a lot of the other kids in the class. so they can talk in a small group with that direct. you really need	
15	to challenge your academic Spanish. could we brainstorm ideas maybe? or think about ways. so that they know internally that they need to be challenging themselves. otherwise I maybe feel like they're just going to keep going because up until now	

	school for them has been like. do as much as I need to but
20	don't stand out for being one that knows way too much. I don't
	know.

In our final interview, Brad used the evaluative adjective-noun combination "big breakthrough" (line 1) to express his enthusiasm for his new belief that SHL students need just as much support as EHL students for their Spanish home language development. He also compared working with SHL students' language to working with EHL students (lines 4-5). Analogy is a tool often used to justify practice through comparing a new practice to one that has already been established as "good" (van Leeuwen, 2007, p. 100). This final breakthrough may be particularly important in that it illustrates how Brad began to see both groups as needing (differentiated) support for their bilingual language development.

Excerpt 6.4.

1	I think that for me was a big breakthrough with these kids. not	Brad
	only is it good for them? and they're excited by the higher	
	language and thinking about it more advanced but it needs to	
	be direct with them. it needs to be as direct with them as it is	
5	with Susan.	

Jessica

Throughout the study, Jessica was presented as a student who adapted well to the immersion model and learned language "naturally." Her linguistic development was presented as an example of immersion success and Brad and I spoke as if she did not need additional instructional support. We both often commented on how easily she appeared to pick up language. In Excerpt 6.5, Brad commented on how quickly Jessica was able to learn conditional and subjective forms through play. According to van Leeuwen (2007), "The only criterion for distinguishing between a true natural order and a moral and cultural order disguising itself as a natural order, is the question of whether we are dealing with something that can, in principle, be changed by human intervention" (p. 99). By presenting Jessica's language acquisition as natural, the implication was that she

did not need additional support. We rarely spoke of specific practice that would facilitate her continued language development. Ironically, Jessica was the student who was most at risk for losing her Spanish oral language proficiency since she had stated her desire to leave the program. Throughout our conversations, it was clear that she was the focal student with whom we were least concerned. The low modality of the verb "play" (line 6), for example, implies that learning was a game at which Jessica didn't have to work. At no point throughout the transcripts of our work sessions did we suggest particular instructional practices for Jessica.

Excerpt 6.5.

1	Jessica picks things up crazy quick. she'll play with conditional stuff. or she'll play with. it was like a wild form that I had to quick. Jessica's like is it like this or is it like that? but it was a complicated past subjunctive thing that I was like. and then	Brad
5	there was some conditional stuff in there. it was wild. and I had to wrap my brain around it. but she played with it the rest of class. she wrote it. and then she used it in speaking with a partner. she really plays with the language a lot. which is neat.	

(Brad, Interview, October 6, 2014)

Jessica's pattern of using an intertextual teacher voice appeared often in the interview transcripts. In Excerpt 6.6, lines 1-3, Brad used the subordinating conjunction "because" to explain that Jessica's good behavior could be rationalized by her desire to be seen as a teacher. Later in the same interview, he described Jessica's literal use of an alternative voice when she played the role of teacher during instruction (lines 4-5).

Excerpt 6.6.

1	Jessica has talked about how she wants to be a teacher. Jessica wants to do right by me because she wants to be seen as a teacher-leader in my eyes.	Brad
	--	
5	whereas Jessica turns on. I feel like it's a different voice. I'm like who are you?	Brad

(Brad, Interview, December 8, 2014)

In the final interview, (Excerpt 6.7) Brad and I spoke about Jessica as a biracial student. There may have been tension in the categorization of Jessica as an extremely successful student *and* a Black student in a school with a substantial achievement gap. By rationalizing her achievements through a framework of White achievement (lines 4-7), and attributing Jessica's success to her alignment with White culture that "naturally" achieves, the potential of instructional practice to encourage her linguistic growth may have been lost. If we had examined her communicative goals and strengths, instead of assuming that she would naturally meet her language learning objectives, we may have been able to design learning activities that were more motivating for her. However, when I supported Brad's rationalization (line 8) of Jessica's success, he hedged on his assertion and reduced the modality of his statement (line 9). Unfortunately, our trust in nature may have caused us to ignore potential instructional practices that would have encouraged her linguistic proficiency, engagement, or awareness of how language works which may have led her to be more motivated to stay in the program.

Excerpt 6.7.

1	which is that culture piece. she's an interesting kid because	Brad
	she's got a White parent and a Black parent at home. and there	
	are different parts of Jessica that I feel like sort of represent	
	stereotypical White culture and stereotypical Black culture. it's	
5	just a super fascinating case study to watch this little girl.	
	workwise she's much more of that White culture of don't get in	
	my space. I have my checklist. I'm doing it.	
	yeah. Cory. Nancy definitely. that's similar.	Amy
9	and that's very blunt of me.	Brad

(Brad, Interview, December 16, 2014)

Joel

When asked about which students needed the most differentiated instruction (Excerpt 6.8), Brad clarified that EHL students required the most instructional support (3-5). At this point, he introduced the essentialized category of SHL students who do not have "normal" language patterns (lines 7-9). The large range of linguistic varieties used by emerging bilinguals has been discussed extensively in the literature (Creese & Blackledge, 2010; Esquinca, Araujo, & de la Piedra, 2014; García & Sylvan, 2011; Li Wei, 2011). By labeling SHL students with non-monolingual language development patterns as not normal, Brad may have been hinting at the moral value of non-standard emerging bilingual patterns (van Leeuwen, p. 97). However, he also appears to have been rationalizing his current practice and its focus on EHL students (lines 3-5).

Excerpt 6.8.

1	do they tend to be Spanish home language or English home language kids?	Amy
	the variety means English. tends to be the kids that need more help with it or need more differentiation with it tend to be the	Brad
5	English home language kids. but not necessarily always. you sometimes get already with this group I have a couple of Spanish home language kids that don't necessarily. that I have seen in their writing aren't putting together the normal language structures.	

(Brad, Interview, September 12, 2014)

The construction of Joel as a non-legitimate SHL student continued during the second interview. In Excerpt 6.9, my assertion that Joel was a SHL student (line 1), using the high modality filler "right?" was met with clear resistance. Brad clearly replied, "no," in line 2, but then reduced the modality of that statement by including the term "technically" which could imply that the topic was negotiable. His rationalization took the form of an explanation from an external authority, "mom always says" (lines 2-3). However, I interrupted Brad in lines 4-6 and contradicted his statement. I attempted to counter his rationalization ("mom says") with my own opinion ("in the assessment"). This creative tension occurred frequently during our interactions and led to a number of

brainstorming sessions regarding potential instructional practices that could meet Joel's unique language learning needs. (This productive tension can be contrasted with our non-productive agreement on Jessica's success.)

Excerpt 6.9.

1	Joel is Spanish home language right?	Amy
	no. technically. Mom always says. he's listed as an ELL student. but technically. Mom says that he=	Brad
5	=in the assessment he had a typical Spanish language vocabulary.	Amy
	I had the older brother last year for math. and Mom told me that they're English at home. Mom is English.	Brad

(Brad, Interview, October 6, 2014)

Towards the end of the study, I continued to present Joel as a SHL student. However, Brad and I had now introduced a new category into our discussions: "receptive bilinguals." Receptive bilinguals have been described as, "English-dominant and understand almost all spoken Spanish but have limited speaking abilities in the language and do not read or write it" (Schreffler, 2007, p. 27). While we did not know if Joel (or other SHL students) met this definition, the term appeared to reduce the tension and allowed us to agree that some SHL students, although not highly proficient in Spanish, were distinct from EHL in regards to external ties to the Spanish-speaking community.

In Excerpt 6.10, when I revisited this tension (line 1-2), Brad responded with a story about Joel's bilingual family history. He began with, "This will probably be interesting for you to know" (line 4) which may indicate that Brad was acknowledging the tension that had occurred between us regarding Joel's bilingual credentials. He concluded that Joel's mother was "100 percent bilingual" (line 14). Brad continued to narrate how Joel's mother (and two other classroom students' mothers) were friends and although from SHL homes, grew up not wanting to speak Spanish at school (lines 15-22). By sharing this background information, Brad appeared to use adequation strategies to emphasize the similarities between students in our newly created category (receptive bilinguals). Additionally, he could have been attempting to align himself with me by providing support for my previously expressed beliefs. Later on in the interview, when

Brad asked for more theoretical rationalizations for these students' learning patterns, I accepted the role of expert (line 30) by providing "truth" about "the way things are" (van Leeuwen, 2007, p. 103) despite the informal tone of our conversation.

Excerpt 6.11.

1	both Timothy and Joel are both receptive bilinguals and they both have dads who are native Spanish speakers.	Amy
	actually I talked to his mom on the phone. this'll probably be interesting for you to know. I talked to Joel's mom on the	Brad
5	phone about different events that have happened in the class and his report card. she was like an apartment manager or something, and she talks to everybody. on the phone she talks to me in English and she talks to me in a very standard grammatically academic English. and then on the last three	
10	times I talked to her on the phone she's still at work. someone has come in and she talks to them in perfect academic social Spanish. but without any grammatical errors. it's not just like a Spanish that you just get in school. it's like a Spanish that you speak. she is like 100 percent bilingual.	
	--	
15	the connection here if you connect to the dots that is the little [city] circle. I think Joel's mom, Analí's mom, and Diego's mom all grew up together on the west side of [city]. as far as I know they're first-generation English-speaking kids. their parents spoke a lot of Spanish. just with the westside is.	Brad
20	Diego's mom shared with me. we grew up and we didn't want to talk. it was like taboo. you didn't want to be the girl that was talking Spanish.	
	that is interesting.	Amy
	--	
25	Joel can read these things. Timothy where he is at reading level wise, the *predecir* questions are a lot harder for he and Sara.	Brad

	but Joel can read these questions and knows what they mean	
	and can kind of. I think he's even a stronger. I don't know what	
	research says about this but that receptive bilingual kid. does	
	that apply to reading as well?	
30	yeah. for sure.	Amy

<div align="right">(Brad, Interview, December 8, 2014)</div>

During our final interview (Excerpt 6.12), I again asked how Brad felt about Joel's Spanish oral language proficiency growth. Before I could finish the question, Brad interjected with the evaluative adjective, "amazing" (line 3). While this could imply that he was rationalizing both our attention to Joel as a focal student as well as the support provided for receptive bilingual students in the class, it could also signify Brad's support for my interest in Joel. At this point, there was a shift in tension regarding Joel's status as a SHL student. From a "moral authority" perspective (van Leeuwen, 2007), it now appeared that Brad had legitimized practices that gave attention to receptive bilinguals' particular language development needs.

Excerpt 6.12.

| 1 | a lot of the Spanish home language kids. Joel too. his Spanish now compared= | Amy |
| | =it's amazing. | Brad |

<div align="right">(Brad, Interview, December 16, 2014)</div>

Abdul

Abdul was one of the few Black students in Brad's class who was achieving academically the same as or better than the top White students in literacy. Brad advocated for Abdul as a potential participant due to his strong Spanish literacy skills, but lack of oral language proficiency development. Excerpt 6.13 was an example of our interactions in which Abdul was positioned as a tale of success (van Leeuwen, 2007). When I asked if he was one of the least proficient EHL students, Brad resisted this assumption and argued that although Abdul chose not to use Spanish, "he's very capable of doing it" (line 3). He later restated that Abdul was among the best students in the class (line 4). He appeared to have a strong investment in Abdul's success however he did not mention any specific instructional practices used to facilitate his Spanish language growth.

Excerpt 6.13.

1	in my mind, he's up here with these guys in what he can do.	Brad
	that's probably why you put him there. he doesn't use Spanish	
	often. but he's very capable of doing it.	

	--	

	Nancy and Abdul have the two highest Spanish reading scores	Brad
5	for the whole class.	

<div align="right">(Brad, Interview, October 6, 2014)</div>

Toward the end of the study, Brad began to reflect on the possibility that he may not be encouraging Abdul to develop his Spanish language proficiency. Instead, Brad rationalized his focus on behavior as the primary strategy that would continue to promote Abdul's academic achievement. In Excerpt 6.14, Brad described his working relationship with Abdul. He appeared to argue with himself (lines 7-8) and did not have a clear rationalization for his instructional practice, which appeared to focus primarily on behavioral expectations (lines 1-7). He narrated an example that illustrated the playful and supportive relationship that he had developed with Abdul (lines 1-7) and suggested that his practice had not focused on Abdul's linguistic development (line 8).

Excerpt 6.14.

1	Abdul and I tend to talk about are much more often behavior	Brad
	related. not necessarily in a bad *castellanos* sort of way. but	
	just to recognize, we don't need to do that right now. someone	
	does something, and then he laughs and kind of chides at them.	
5	it just like , nope. you're making the problem worse. he's like	
	yeah. sorry. he's much more aware of me when it comes to	
	behavior. maybe I'm giving him an excuse or maybe I've	
	created that lack of awareness when it comes to language.	

<div align="right">(Brad, Interview, December 8, 2014)</div>

At the end of the study, Brad and I discussed Abdul's apparent enjoyment of the language-focused differentiated instruction. In Excerpt 6.15 we discussed ideas for new functional language targets (lines 1-2). While brainstorming phrases to introduce (lines 1-4), Brad mentioned how much Abdul enjoyed particular linguistic forms. The verb "love"

(line 5) implies high modality and suggests that Abdul had strong feelings related to the relationship building he was now able to do in Spanish. The shifting rationalization of educational goals for Abdul may imply that Brad will focus on providing Abdul with more opportunities and encouragement to expand his linguistic resources.

Excerpt 6.15.

1	you can have disagreeing without hurting someone's feelings. that's another good one. like *no señor [no sir]* or *ni modo [oh well]*. like oh well. it doesn't matter."	Brad
	or *qué lástima [too bad]*.	Amy
5	which Abdul loves. Abdul threw that one out earlier. he is like *ni modo señor [oh well sir]*. those are the things that have stuck the most in the classroom.	Brad

(Brad, Interview, December 16, 2014)

Susan

Similar to Jessica, Susan was presented as a student who would pick up language "naturally." Excerpt 6.16 began with Brad's conceptualization of how typical EHL students acquired knowledge in his immersion classroom. He rationalized playing math games and providing visual support for particular vocabulary words and linguistic forms (lines 1-7). He used high modality ("always") in relation to his practice of providing language supports but then low modality ("kind of") in relation to students' tendencies to *use* those supports (line 1). Later on in the interview, Brad justified how he worked with less proficient students during content instruction. He used the subordinating conjunction "because" (line 11) to legitimize students' use of bullets to describe information as well as his practice of using small group instruction to work with those students. Although Susan was one of the lowest EHL students in terms of proficiency, she was rarely pulled aside in order to promote her proficiency. There were a number of students who were either receiving special education services or were recommended for them. These students tended to receive a majority of Brad's additional attention. EHL students such as Susan who were achieving academically, but not linguistically, rarely received any explicit support for their language development. In line 17, he described his practice of providing external rewards for Spanish language use. The implication may have been that EHL

students would develop language through a combination of environmental language, small group support, and external rewards. However, judging from Susan's difficulties with Spanish language proficiency, these practices were not working for her. Excerpt 6.16.

1	so there is always pieces there, and the kids kind of use what they need u:m but then like specifically in like in math there's a lot of games that we play. where I'll have posters up of the language that they need to use. like it's like I'm thinking of like	Brad
5	more than less than. *mayor que menor que. or algo es equivalente a.* for digits talking about that. so there are things like that	
	--	
	the kids whose language is lower tend to just list phrase, phrases of things. we do planets and they'll list. like. (1.0) I am	Brad
10	having trouble thinking of simple statements in English. they'll give me half of, of a sentence. because they'll see in a book. there will be a guiding question like. find out the characteristics of mars! and they'll see red. dusty. something and they'll just list those characteristics and not necessarily	
15	make a sentence. so I'll pull a small group on like. how can I make a whole sentence? and I'll make a whole list of things.	
	--	
	so I have the cubes which are a reward for Spanish language use. so it's just a time for. really for them to really it's a developmental thing.	Brad

(Brad, Interview, September 12, 2014)

In Excerpt 6.17, during our second interview, Brad described Susan and her struggles with Spanish oral language proficiency development. However, he repeatedly introduced hedges to lower the modality regarding his concern for her problems ("a bit," "actually," "probably," "surprising," "like"). He concluded, however, with a contradictory high modality adverb "really good" to describe aspects of her oral language.

177

Excerpt 6.17.

1	Susan struggles a bit. her Spanish reading was actually much lower. she and I just read today. it was a couple levels lower than it was listed from second grade. Spanish reading and writing. Susan's probably in four or five, which was surprising because I feel her oral proficiency is like peaks and valleys. there are really good stretches.	Brad

5

(Brad, Interview, October 6, 2014)

Toward the end of the study, Brad appeared to gain enthusiasm about Susan's language development. During our interview (Excerpt 6.18), he interrupted me twice (line 2 and line 8) to express his excitement about Susan's language development. In lines 6-7, I made a prediction of Susan's potential language improvement given additional language-focused differentiated instruction. By using a prediction, a speaker provides a "ring of authority" and expertise (van Leeuwen, 2007, p. 104). Brad provided extra support for my prediction (lines 8-11), which may imply that his practice will continue to include differentiated attention to language.

Excerpt 6.18

1	and Susan as well. I think that attention=	Amy
	=she's coming around! she starting to hear it. she still says to me y*o tiene*? she did it on her homework. I was like. what in the world? it was something like y*o da*. it was about *ropa usada* I was like=	Brad
5		
	yeah, but it seems like if this were maintained. real attention to language. that that would really help her=	Amy
	=yeah. because today she did it. in the beginning she is to look at me and be like y*a yo tiene*. I would be like y*o tengo*? y*a yo tiene*? no, I want you to say y*o tengo*. but today she self corrected. she was like y*o tengo*?	Brad
10		

(Brad, Interview, December 8, 2014)

Language-Focused Differentiation

While most of our discussions focused on linguistic diversity in relation to the target focal students, we also explored specific topics related to general language-focused differentiated instruction. The following transcript excerpts outline how Brad's and my characterizations of instruction changed throughout the study.

In Excerpt 6.19, Brad justified his students' learning challenges in relation to external forces (not under his control) including home language proficiency (lines 4-15) and previous teachers' ability to promote language development (lines 16-18).
Excerpt 6.19.

1	why. do you think that some kids get it and adapt so well. and other kids don't?	Amy
	I don't know. if there is a common thread. I mean. there is some research that will point out like if they're reading at home	Brad
5	like what they're L1 strength is. like some of those kids their native language isn't as strong either. they don't necessarily come in with really strong English if they are EHL kids. so some of that. so it's just hard to kind of. there's like are a lot of missing gaps when the transfer happens. there's not a solid	
10	structure in the home language. so some of that. I'm kind of vague on the thread. reading and oral language are literally tied together so for whatever reason reading is not happening. that's usually a bit of it. and where they just kind of one affects the other and vice versa. (2.0) yeah. otherwise but some times I	
15	wonder if kids kind of fall. in this like loop of like. if they have a teacher like two years where the teacher doesn't necessarily. some times its like a really shy kid who manages to fly under the radar.	

(Brad, Interview, September 12, 2014)

Later, he outlined his avid support for a clear articulation of Spanish language goals in Excerpt 6.20 (lines 5-10). However, he concluded his narration about fighting for clear grade-level language objectives with his perception that it didn't work. Therefore,

this negative result had led him to use resources produced at a different school. Since it was only our second interview, Brad might have assumed that I expected him to be following a clear grammatical scope and sequence to promote language development. However, our work throughout the study clearly focused on more functional language instead of grammar-based focus-on-form. His representation of his belief in grade-level language objectives shifted in future interviews.

Excerpt 6.20.

1	is there a scope and sequence for conditional and subjunctive. when you introduce it school wise?	Amy
	yeah. we=	Brad
	=there is? okay. everyone has told me no.	Amy
5	here's the deal. there's not a school-wide plan. I fought like a crazy person the first couple years to be like why is it not established that at the end of second grade my kids will know past participle or my kids will know predicate verbs, period. and if they don't know imperfect verbs, c'est la vie. so what	Brad
10	there is that I tend to go by is the [another immersion school]'s.	
	somebody said a long time ago they used to.	Amy
	I have a copy of that.	Brad
	can you give that to me or get that for me sometime?	Amy

(Brad, Interview, October 6, 2014)

By the middle of the study, Brad expressed a slightly different conceptualization of lesson-specific form-focused language objectives (Excerpt 6.21). While I clearly framed his comments for him in lines 1-3 (based on a previous unrecorded discussion), he told another cautionary tale, but this time about the negative consequences of having a school-wide expectation for language objectives (lines 5-15). In lines 22-25, he justified *not* using language objectives by providing a story about Katrina not connecting to the language work previously done (with the implication that all SHL students felt the same way). Brad appeared to question the validity of interrupting content instruction to work on language development, particularly for the more proficient SHL students. The longer text and more complex narration used in Excerpt 6.21 may imply that Brad was

expressing an opinion that was more connected to him emotionally. In contrast, he used short phrases when he expressed support from school-wide language objectives in the previous excerpt (Excerpt 6.20, line 3 and line 12).

Excerpt 6.21.

1	you're saying that you had used language objectives before and it was kind of. I don't want to put words in your mouth. but it just didn't really work very well. like it was a push and then=	Amy
5	yeah. it was a big push when I first started teaching here. there wasn't always connections. I had to do it for any formal observation. sometimes it just felt like pulling teeth to put it down on paper. like vocabulary-type stuff makes sense and verb forms that they're going to have to use in a writing piece makes sense. but sometimes in a geography lesson? you have the vocabulary and there's some things but to try to structure in the use of preterite verbs while talking about latitude and longitude seems sort of highjacked. it seems a little like what? why?	Brad
10		
15		
	and for every lesson?	Amy
	it's just overwhelming as a teacher to plan two literacy blocks and keep all of that and then to do all these language objectives on top, it just becomes=	Brad
20	=I've noticed at your school it just would be. I don't know how helpful it would be because there's such a huge range.	Amy
	that's the other thing. you have kids like Katrina that would look at me like let's talk about this latitude longitude thing and not talk about whatever. I can't think of a verb that they would use past tense within social studies. it wasn't the most useful.	Brad
25		

(Brad, Interview, November 14, 2014)

Excerpt 6.22, recorded during the final weeks of the study presents Brad's and my more nuanced discussions about student Spanish language development. Instead of conceptualizing language-focused instruction as an externally mandated one-size-fits-all

practice, Brad now appeared to view language instruction as something that "kids love" (line 6) and that could be integrated into his instruction functionally. He no longer justified his students' language development problems using external factors (as in Excerpt 6.16) and he rationalized instructional decisions based on his own enjoyment of the practice (lines 1-2).

Excerpt 6.22.

1	we're taking this idea as a grade level because I liked it so much in math.	Brad
	--	
	=I would agree. even having some of the idioms. have some academic language but also have some fun different idioms	Amy
5	like *qué padre* or *chévere*. that's something I learned=	
	=because the kids love it.	Brad

(Brad, Interview, December 8, 2014)

Excerpt 6.23, presents a final and unexpected development in terms of Brad's conceptualization of language-focused differentiated instruction. Throughout the study, Brad used the word "play" to describe students' functional language use. During our final meeting, he made an explicit commitment to the conceptualization of language-focused differentiation as play and rationalized this perception through the support of an expert that he had encountered in one of his Master's level classes. His high modality "really interesting" implied an emotional connection to this new concept. He cited his previous experience and expertise with play (lines 5-6) and used adjectives with positive connotations ("really fascinating" and "neat") in lines 3, 8, and 10. He also used an abstraction ("kids need to play") as a moral authority mechanism to support his new belief that language development should be related to play. (This can be contrasted with previous comments about language objectives being a list of grammatical forms kept in a binder or a requirement to be enacted only during formal evaluations.) However, he also ended this comment with an assertion that language-focused differentiated instruction is "overwhelming" (line 11). This word was consistently used to describe our work together and previous work that Brad had done with language-focused instruction.

Excerpt 6.23.

1 there was another one that I thought was interesting based on	Brad
what we did with math that dealt with play and the idea of	
learning language through play. it was just really fascinating.	
this woman talked about outside of academic and social	
5 language was the language of play and kids. this is my pre-	
primary coming through because I'm a big advocate of play.	
this idea of language and play wasn't new to me necessarily	
but as it related to an immersion context was fascinating from	
kids' need to play. they need these sort of different experiences	
10 so they can flex all those language muscles. it was really neat	
to kind of go through it. and overwhelming.	

<div align="right">(Brad, Interview, December 16, 2014)</div>

Despite the apparent success of the study in terms of student learning, instructional design implementation, and teacher and student perceptions, there were a number of "cautionary tales" that need to be considered when working with language-focused differentiated instruction. The following two excerpts present those concerns.

Excerpt 6.24 expands upon Brad's feelings of being overwhelmed and adds an additional concern--his loss of time to work with content. Brad expressed this problem (lines 1-6) and then concluded by "opening up the floor" (Kinsella, 2008) in a move to invite me to add my thoughts to this concern.

Excerpt 6.24.

1   at the end of last week I felt like all the content just got shoved
aside 100 percent. they weren't really doing any of the
nonfiction. we didn't get into subtitles at all. we didn't get into
any of those things and they've come up in different areas. but
5   as a teacher I kind of took the content path and tucked it away
for a week. it was super language-focused. but thinking outside
of what your study is how does one go about balancing?

<div align="right">(Brad, Interview, December 8, 2014)</div>

The final concern discussed during our last meeting entailed Brad's disappointment with the lack of work with racial equity. While we had originally talked

about looking at how to work with students from different racial and linguistic backgrounds (see Chapter 3), in Excerpt 6.25 he stated that it felt we mainly discussed oral language proficiency and failed to extend our discussions into more challenging racial equity work. He again presented his concerns in the form of questions, perhaps to lessen the impact and invite my opinions (lines 9-12), but nevertheless he spoke at length about his concerns. He later invited me to work with him on his Master's thesis and expressed his intention to take up these questions in his own work.

Excerpt 6.25.

1	yeah. I think having done the lit review in the work here with
	you this is probably where my capstone will go which is
	interesting because I don't know that I saw it going that way.
	now I'm like. I've done all this work and I want to see how it
5	works. it's just interesting. you and I had initially talked. we
	picked the different kind of four quadrants. at least from my
	perspective I feel like we lost focus. maybe this is just. for me
	the equity piece of I want to dig in deeper of a why Jackie why
	Diego. is there a racial piece? is there a home language piece?
10	why do we kind of have these sort of stereotypical kids that fall
	into these four quadrants? what do we do as not only
	immersion teachers but as urban teachers?

(Brad, Interview, December 16, 2014)

Summary

A review of the interview and work session transcripts is helpful in understanding how Brad and I shifted in our conceptualizations of linguistic diversity and differentiation throughout the study. Through our interactions, Brad and I deepened our understanding of how SHL students' can expand their Spanish oral language resources. By questioning our adequation strategies with this category of students, we were able to experiment with a number of new ways to push Katrina's language growth. The lack of tension, however, during our discussions of Jessica many have reinforced the distinction that we made between her (as a successful, future teacher) and other students who were not such "natural learners." The fact that she was considering leaving the program was never discussed, and we didn't shift drastically in our conceptualization of her language use. In contrast, the constant tension during our discussions of Joel appears to have led to the birth of a new "strategically" essentialized category. By separating "receptive bilinguals" from other EHL students, Brad was encouraged to engage in reflection about how to better meet these students' needs. Because this category emerged towards the end of the study, however, the planning was just beginning when we ended our work. With Abdul the transcripts showed that, similarly to Jessica, his identity as a successful Black immersion student (although more fragile than Jessica) may have initially led to a lack of support for Abdul's language development. External motivators (like the reward cube that would be exchanged for prizes) didn't work well with Abdul. Therefore, Brad seemed content to focus on Abdul's literacy and behavior goals. However, as Brad saw Abdul enjoy the playfulness of functional language, Brad appeared to focus on Abdul's oral proficiency as well as biliteracy development. I initially identified Susan as a struggling student due to her low oral language proficiency and linguistic inaccuracy. However, Brad appeared to use distinction constructs to separate her from other struggling students, which may have led to a lack of explicit support for her language development during instruction. As the study progressed, however, we both began to identify strategies to support her language growth, especially as we saw how positively she was responding to feedback. Overall, Brad and I shifted from talking about language objectives as a static product and began to talk about language instruction as an ever-changing process focused

on interaction. However, while the potential for including language play into the existing classroom routines seemed exciting to Brad, it also appeared to overwhelm him.

CHAPTER 7: CONCLUSIONS

In this chapter I summarize the findings from the study and the apparent impacts on the local context. I then discuss major themes from the findings in relation to existing literature and theory about language-focused instruction and linguistic diversity. This discussion will address potential broad theoretical impacts (Bannan-Ritland, 2003) of the study. I then outline implications for practitioners who aim to expand students' linguistic complexity through language-focused differentiated instruction. Recommendations for further research are proposed including potential additional iterations to continue the DBR cycle.

Summary of Findings: Local Impact

The summary first outlines findings from the data related to local impacts of the language-focused differentiated instructional design on focal students' linguistic complexity. Analysis of discourse samples from the initial and final SOPA assessments, classroom recordings, and teacher and student interviews are combined to provide an overall picture of how language-focused differentiated instruction may have afforded or constrained individual focal students' increased linguistic complexity.

Katrina

Based on the data from Phase 1, Katrina, a SHL student with the highest levels of proficiency in the class, appears to have been simplifying her language when interacting with EHL students at lower ranges of Spanish proficiency. The classroom discourse samples collected in Phase 1 had many examples of language use that was repetitive, with little subordination and a limited variety of verb types and forms during academic tasks. According to the SOPA transcripts, on one measurement (NDW) Katrina's linguistic complexity did not increase during the study and by another measurement in which it did increase (SI), it was still lower than Jessica's, an EHL student. Katrina did not produce a large number of standard words in specific SALT grammatical categories during the initial or final SOPA transcripts. This evidence supports the need to continue to promote SHL students' language development throughout an immersion program. There were limited attempts to use more complex language during Math Games or during peer reading activities in Phase 1. Discourse samples from Phase 1 Math Games interactions showed that Katrina remained within simple boundaries when attempting to

support her assertions (yo gané, *I won*). Instead of supporting her arguments with more complex language, she used simple language that met her ideational goals (showing that her math score was higher than her partner's), but primarily facilitated her interpersonal goals (maintaining the communication with her partner).

According to the classroom teacher, there were few explicit supports for Katrina's language growth since differentiation strategies focused primarily on EHL students' language needs. SHL students were considered to have already completed their Spanish language acquisition process and therefore were not explicitly pushed to continue developing their language resources. However, as the study progressed the teacher changed this belief and began to advocate for the need to push SHL students' language. He then focused on ways to increase the rigor in SHL students' oral language use, especially during the reporting out portion of each lesson. Through conferencing and additional language choices, Katrina was encouraged to use more complex and less common language options. During Phase 2 Katrina appeared to assert her bilingual identity and to develop a growing awareness of the potential to use more complex language. Katrina used creative constructions when interacting with peers drawing on their new shared phrases to expand the use of her language resources. While Katrina began to use a greater variety of forms to meet interpersonal and ideational goals, she began to take on a more reflective stance regarding her language choices towards the end of the study. During the final student interviews, Katrina reported an increased investment overall in the learning experience perhaps due to the added value placed on bilingual language skills and Mexican words and phrases used during the study.

Jessica

As one of the most proficient EHL students, Jessica appeared to incorporate new linguistic forms easily during the study. According to all SALT measures, her linguistic complexity increased greatly during the study. She was particularly participative during Phase 2 activities focused on teacher-guided reporting. When students were expected to present their findings to the large group, Jessica took on the teacher role to facilitate students' ideational discussions. However, her enactment of the teacher role may have led to confusion among the other students as they played the role of learners. Because she didn't have the deeper metalinguistic understanding of more complex structures, she

wasn't able explain how language was constructed to other students. During teacher-research collaborative work sessions little time was spent discussing how to meet Jessica's learning her needs and she was often presented as a "natural" learner. However, her needs may not have been completely met in the immersion program despite her academic success. During the final interview, she expressed a concern about not "knowing all the words" in Spanish and her wish to exit the TWI program. She may have conceptualized Spanish as a static group of words and rules to be memorized and this may have discouraged her from continuing to develop her bilingual skills. Jessica reported a lack of investment in continuing her bilingual experience in this immersion program.

Joel

Joel's language complexity increased as measured by the SALT analysis, however his language complexity grew less than the EHL focal students, particularly as measured by MLUw and SI. Nevertheless, his classroom language use shifted greatly from Phase 1 to Phase 2. It appeared that as Joel became more aware of his bilingual identity, he began to apply language resources to meet his ideational goals, especially during teacher-supported reporting tasks. The classroom teachers' understanding of Joel's Spanish home language resources shifted greatly during the study and led to a new status for Joel as a "receptive bilingual." This newly conceptualized category may have led to an increase in individualized attention from the classroom teacher. However, this understanding was not reflected in a clear change in instruction. Joel's increased engagement during teacher-facilitated reporting activities was not recognized initially and the public correction of his language usage by the classroom teacher may have constrained Joel's growing investment in language learning. While Joel increased his engagement in the educational experiences as the study progressed, his increased efforts may not have been reflected in the final SOPA assessment transcripts. In the final interview Joel reported an excitement about creative Spanish language use and a desire to continue his growth as a bilingual student and to expand his linguistic resources to include "all the languages."

Abdul

Abdul's language complexity increased greatly as measured by the SALT SI and MLUw analysis. Although his NDW decreased, this was likely due to the fact that he

used Spanish more during the final SOPA interactions and therefore used a smaller variety of words during these interactions. Abdul appeared to prioritize his interpersonal relationships during the classroom discourse samples in *both* Phase 1 and Phase 2. However, the additional interaction tools provided in Phase 2, appeared to allow Abdul to communicate in Spanish using the phrases and words provided. However, Abdul did not often use more complex language to report on his interactions to the large group. The teacher described Abdul as a successful African American student who may not need to concern himself with Spanish language development. This conceptualization and the reliance on extrinsic rewards may have constrained Abdul's engagement with increasingly complex language. However, as the teacher became more aware of Abdul's oral language growth potential and his enjoyment of these linguistic tools, the teacher's attention to Abdul's language use increased. Because Abdul was particularly creative in using language to negotiate complex situations, his classroom language samples were helpful in identifying student functional needs that could become future target language. In the final interview, Abdul expressed his desire to continue his bilingual development and was particularly interested in "tricking" other bilingual people who wouldn't think, based on his appearance, that he was able to understand and speak with them in Spanish.

Susan

Susan improved more than any other focal student on the SALT complexity measures SI and MLUw. During Phase 1 Susan not only used a number of inaccurate structures, but she was also convinced of their appropriateness and could provide extensive explanations of why she made particular language choices. During Phase 2, she drew on the language-focused differentiated instruction not only to increase her linguistic options, but also to reflect on her lexical specificity and accuracy. While some students appeared to grow in their awareness of more complex language options, Susan often discussed her choice of particular forms based on perceived accuracy. While students such as Susan were supposedly the primary targets of the teachers' initial differentiation efforts, Susan did not seem to receive much proactive support for her language development during Phase 1. However, during Phase 2 she responded well to the large group explanations of linguistic guidelines presented by the teacher. Susan reported, in

the final interview, a strong connection to her identity as a bilingual student and expressed her desire to start an Italian immersion school when she was older.

Discussion: Potential Broader Impact of the Findings

Findings are discussed in relation to four overarching themes found in the data and in the literature. Differentiated attention to language appeared to influence students' language choices and increased the functional value of their language resources in relation to four key areas: (a) students' emerging bilingual identities, (b) facilitated access to conversations, (c) exposure to increasingly complex language, and (d) affordances for student language awareness. While language-focused differentiated instruction influenced each student's language use patterns during their interactions, it appeared to affect students differently depending upon their linguistic proficiency and home language as well as the teacher's perception of each.

While traditional differentiated instruction has been described as "providing the right students with the right instruction at the right time" (Earl, 2003, p. 86-87), Tomlinson, et al. (2003) has advised teachers to differentiate affect, content, product, and process according to individual students' interest, readiness, and learning profile. For language-focused differentiated instruction however, teachers may be advised to consider (a) each students' emerging bilingual identity in order to better differentiate students' (b) access to conversations through functional language supports, (c) exposure to increasingly more complex linguistic structures, and (d) affordances for language awareness experiences (Figure 7.1).
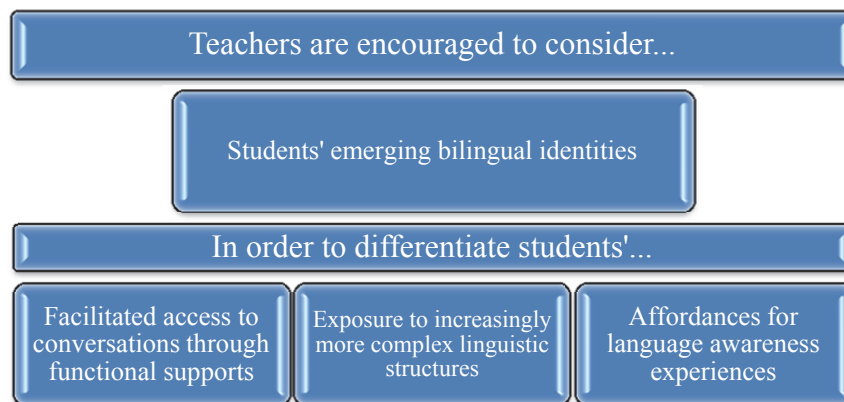

Figure 7.1 Language-focused differentiated instruction for TWI programs

Students' Developing Bilingual Identities

The concept of "native speaker" appeared to constrain practices that would promote oral language proficiency development for the wide range of students in the class. SHL students with more linguistic resources were considered completely proficient and their continued language growth was not supported. Because they tended to simplify their language so that less proficient students could understand them, their proficiency levels may have stagnated. SHL simultaneous (receptive) bilingual students, however, were considered to be EHL students and were not supported in their unique language development. "Emotions of minority status" (González, 1992) in a TWI classroom could affect language practices of students who do not fit into the "native speaker" category. The unique language resources of receptive bilingual students (Garcia, 2009) and unique manifestations of bilingual membership (Shohamy, 2006, p. 16) may cause SHL students with lower than average Spanish proficiency to feel that their communicative styles were not valued in the classroom since they could be neither English language models nor Spanish language models. EHL students, however, with nonstandard varieties of English may be considered "fragile" and not encouraged to use bilingual linguistic resources to meet their interpersonal and ideational learning goals. However, once a wider range of strategically essentialized categories were identified in the study, the teacher appeared to explore more flexible strategies to promote creative language use among the wide variety of linguistic identities in the classroom (as opposed to primarily using the extrinsic rewards). Group repertoires (Martin-Jones & Jones, 2000) became more apparent in the classroom and by acknowledging these existing language learning needs, the teacher was able to reflect more creatively on how to facilitate all students' language development.

According to McCarty and Wyman (2009, p. 285), "strategic linguistic essentialism and related authenticity concerns can be problematic, yet powerful" both for a wide variety of language learners including heritage language learners. Like the Indigenous youth in their study, students who don't fit into a clear native speaker category may "grapple with authenticity . . . not only as a linguistic issue but also as a cultural and educational one" (Henze & Davis, 1999, p. 14). As students struggle with what authenticity means in their community languages and cultures, teachers can reinforce stereotypes or contest them. By accepting language varieties that are considered less

'pure' or authentic than others, teachers can support students emerging bilingual identities.

Stronger bilingual identities for all students may increase investment in the TWI experience. When learners, such as the third graders in this study, invest in learning a second language, they do so, "anticipating that they will acquire a wider range of symbolic and material resources, which will in turn enhance their conception of themselves and their desires for the future" (Norton & Toohey, 2011, p. 420). By promoting language-focused differentiated instruction in the classroom, students not only were better able to participate in interactions that met their interpersonal and ideational goals, but they often seemed (to a varying degree) to be more invested in their educational process. By increasing the value of language in the classroom, the "capital" connected to bilingualism may also have increased for these learners. Although young children's reasons for engaging in a TWI program are complex, they are clearly related to the value they place on their emerging bilingual identities. As the value of these identities increased, learners appeared to "reassess their sense of themselves and their desires for the future" (Norton & Toohey, 2011, p. 420). Many other researchers have identified investment as a major facilitator of student performance and engagement with the educational process (Angélil-Carter, 1997; McKay & Wong, 1996; Norton Peirce, 1995). In regards to language acquisition, Norton and Toohey (2011, p. 420) have argued that, "The notion of investment has been helpful in signaling the socially and historically constructed relationship of learners to the target language, and their sometimes ambivalent desire to learn and practice it."

The importance of increased student investment in the educational program by four of the focal students was an unexpected finding of the language-focused differentiated instruction. The effect of the emerging bilingual identities of each focal student may be the most pervasive factor in the increased engagement of each student. There was a close relationship between the teacher's deepening understanding of each student's developing bilingual status and the focus placed on developing specific language tools meant to meet each students' interpersonal and ideational needs. By promoting experiences that facilitate each student's authentication as an emergent bilingual, investment in the educational program was increased.

Facilitated Access to Conversations

By extending students' options for peer interaction, students were better able to participate in specific classroom practices and broaden their access to interactional experiences (Herrenkohl & Guerra, 1998). Classroom learning for linguistically diverse students, therefore, may be dependent upon *access* to discursive practices applied during communal meaning-making tasks (Kumpulainen & Wray, 2002). Learning has been conceptualized as the growing ability to participate in cultural practices (Lave & Wegner, 1991; Sfard, 1998; Wegner, 1998). Interactional sociolinguistic researchers such as Kovalainen and Kumpulainen (2005) have described learning as occurring through participation during meaning-making processes. Other researchers have also emphasized the role of social interaction and discourse in knowledge creation (Hicks, 1996; Lemke, 2000; Sfard & Kieran, 2001).

Language-focused differentiation tools allowed students to interact with their peers in playful ways as exhibited through the numerous examples of intertextual practices to negotiate their interpersonal relationships in Spanish. Pomeratz and Bell (2011) have talked about "safe houses" as spaces where students can negotiate "desirable identities for themselves" (p. 150) and have emphasized the importance of these playful experiences to learning. "As students go about constructing alternate identities in safe houses, they often engage playfully with classroom discourses and thus appropriate them in ways that are acceptable to both student and teacher" (Pomeratz & Bell, 2011, p. 150). Humor, for example, is conceptualized as a resource for students to construct individual identities (Baynham, 1996; Belz, 2002; Belz & Reinhardt, 2004; Rampton, 1999, 2006). In a TWI environment, where many students have had to carefully plan their classroom participation since kindergarten, these safe spaces may be particularly valuable for promoting linguistic risk taking. Participation in TWI classrooms may also be risky for many students when they feel their language resources are not valued. Large group participation experiences, for example, may be "intrinsically face-threatening situations" (van Dam, 2002, p. 238). Opportunities to interact playfully with language has been found to be appreciated by adults (Baynham, 1996; Poveda, 2005; van Dam, 2002; Worth, 2006, 2008) and may also be welcome to children. As Rampton (2006) has documented, acts of speaking during classroom interaction are often "put on display,

objectified, lifted out to a degree from its contextual surroundings, and opened up to scrutiny by an audience (Bauman & Sherzer, 1989)" (pp. 26–27). By choosing to provide students with options for including playful language into their math and reading tasks, teachers may be leveraging the potential of these socially sanctioned safe spaces. By protecting and scaffolding interaction in these spaces, teachers may be able to promote differentiated learning experiences that lead to increased language learning.

During Phase 2, socially sanctioned niches in the classroom became "third spaces" (Fitts, 2009, Moje, Ciechanowski, Kramer, Ellis, Carrillo, & Callazo, 2004) within the TWI classroom where linguistic play and bilingual identities could be explored. As students' interactions became more engaging and less remote, they used a wider variety of complex forms. While many classroom studies have identified interactional patterns that privilege whole class instruction (Gibbons, 1998, 2006; Mehan, 1979, 1998; Sinclair & Coulthard, 1975; Zwiers, 2006, 2008), peer interaction may provide more opportunities for students to interact with new texts and discourses that will lead them to expand the linguistic resources from which they can draw. Differentiated activities provided linguistically diverse students with a wide range of language resources that facilitated opportunities to participate during academic activities. Students appeared to know what they were expected to communicate, and they had options to choose from that increased their ability to exchange thoughts and negotiate relationships. The fact that all students had access to the same language options and that participation structures were made transparent appeared to allow more students access to both the math-related conversations as well as the discussions about reading. During Math Games tasks, students shifted from using limited language to meet functional goals (counting, arguing with yes/no structures) to drawing on increasingly complex structures that could be transferred to other contexts. For example, the students expanded the variety of their language used to promote collaboration during the games. During peer reading students changed the nature of their interaction from "parallel" activities with little explicit discussion of the reading to a more active structure in which the students needed to make sense of the text. They took turns asking and answering questions that led to complex answers as students worked to put together complex ideas that represented their experiences.

Exposure to Increasingly Complex Language

A surprising finding from the SALT analysis was the large amount of linguistic forms that even the most proficient speakers were not using. During Phase 1, when students had limited resources in the room from which to draw, more proficient students limited their language use to facilitate interpersonal interactions by using common words and phrases known to the majority of students. However, during Phase 2 the classroom data showed that students were eager to incorporate new words, phrases and sentences into their linguistic repertoires. During the study there was a conscious effort to provide students with increasingly complex options for meeting the students' ideational and interpersonal needs. To a differing extent, students incorporated this language into their linguistic repertoires.

Becker (1994, p. 165) in looking at classroom community development has argued that, "Social groups seem to be bound primarily by a shared repertoire of prior texts." By expanding the shared prior texts, students had more options from which to draw when constructing their interactional sequences. Trestor (2012), in her study of improv groups has also argued for the importance of groups simultaneously, "having access to a range of prior texts to evoke, and having skill at recognizing local texts and finding opportunities to reincorporate them" (p. 256). Oral language development may be similar to the skills that improvisational comedians use to spontaneously enact social roles in a variety of situations. Dorner and Layton (2014), in describing TWI students' language play, have also identified the importance of students access to model discourses from which to draw and create their own utterances. According to the Dorner and Layton, students often appropriate discourses from the teacher in order to expand their language resources. However, if teachers limit input in order to facilitate comprehension, a wide range of students will not have exposure to increasingly complex texts that will facilitate their language growth. Since increased rigor and oral language development to support academic work is important for long-term academic achievement, it may be important to increase students' exposure to increasingly complex language tools that can be used during academic tasks.

A focus on moving students along the mode continuum was often successful in facilitating a reflection and intentional use of more complex language. All students drew

on the additional language and increased structural complexity that these tasks afforded. The social nature of Math Games facilitated a playful interaction with words and phrases that were new to all students. These social experiences provided a safe place for students to explore their interpersonal relationships using new and more complex language. During reporting out, students were able to draw on increasingly complex options to present their results. While reading, students drew on a range of complex options to summarize the texts and make connections to their personal experiences. These opportunities provided students with options to use more complex constructions as they presented their ideas. Teacher-facilitated practices promoted a move along the mode continuum (Gibbons, 2002) from concrete language experiences to abstract descriptions of these experiences, social functions to academic structures, and from oral language to written text.

Affordances for Student Language Awareness

Socially sanctioned niches were converted into safe spaces where children could not only experiment with increasingly complex language, but also increase their awareness of how language works to better meet their interpersonal and ideational goals. When provided with rich opportunities for language production during math and reading classes, students could reflect on the language that they used during highly valued instructional time. By reviewing actual student discourse patterns in these spaces, the teacher became more aware of the language that students needed to negotiate difficult social situations during content instruction and students became more aware of the appropriateness of particular forms and structures as well as the potential for using more complex language.

Many researchers argue that increased awareness (Doughty & Williams, 1998; Schmidt, 1993) and an attention to language in the content classroom (Lyster, 2004; Schleppegrell, Achugar, & Orteíza, 2004) promote both language acquisition and academic achievement. Researchers have also advocated for increased student awareness of how values are attributed to languages and speakers of these languages (Dagenais, 2008) and teacher awareness of struggles around the use of two or more languages (Garcia, 2008). During the study, students increased their reflection around language

choices that led to an increased awareness of how language works and how it could potentially become more complex.

Students discussed with their peers the structures and word choices that would best represent their ideas during peer interaction and for presentations to the large group. For some students, this effort led to increased use of Spanish. Other students were more interested in expanding their functional options and became more aware of how to expand their vocabulary and language structures. While students playfully enacted a range of roles during Math Games, the more abstract language of reporting out appeared to motivate students to make careful choices in preparation for their closing presentation. During reading interactions, students were more aware of their language use and there was evidence of students pushing themselves to use a greater variety of verb forms and constructions. These socially sanctioned spaces allowed students to become more aware of the increasingly more complex language used to facilitate ideational and interpersonal functions.

Implications

Due to the practical nature of this study and the implementation of the improvement on local practice, it is appropriate to list recommendations for practitioners based on the empirical evidence collected during all three phases. Implications listed here relate directly to classroom interactions and can be integrated into existing practices in a variety of TWI contexts. The implications are directly connected to strategies that can increase affordances for students' oral language proficiency development with a range of language resources found in the typical TWI classroom.

Implication 1

A deeper understanding of (strategically essentialized) linguistic categories and bilingual identities can lead to more creative instructional designs that will better meet linguistically diverse students' needs. The concept of "native speaker" limits teachers' conceptualization of emerging bilinguals to two simple categories (EHL and SHL) that do not match the linguistic realities of actual TWI classrooms. Students come with a complex range of linguistic experiences and a variety of resources from which to draw. Bucholtz (2003) has defined essentialism as the act of delimiting groups and assuming that group members are more or less alike. However, she has also outlined strategically

essentialized categories as beneficial in that they "enable researchers to describe a previously undescribed group...when groups are seen as illegitimate or trivial" (p. 401). Replacing the concept of native speaker with the conceptualization of developing bilingual (for all TWI students) will be helpful in differentiating instruction for all students in these programs.

Implication 2

Identification of socially sanctioned niches can facilitate integration of functional language into subject-area content. Pomeratz and Bell (2011) contend that engagement in spontaneous performances can provide rich opportunities for language use and development, beyond those habitually found in more tightly controlled classrooms. Bakhtin (1981) has conceptualized language use as involving interplay between conformity and creativity. Through proactive preparation of language use for play and for presentations during content-area experiences, students will expand their ability to communicate using particular targeted functions. However, large group interactions and individual work may not be the best place to promote linguistic risk-taking and spontaneous performances. Instead, peer interaction in socially sanctioned niches became safe spaces where students could experiment with new language structures and enact intertextuality without the fear of public correction. As Kramsch (2009) argued, "part of the privilege of using a foreign language is the ability to transform it . . . through intertextual practices" (p. 99).

Implication 3

Focusing on functional language that will meet students' sense-making (ideational) and relationship building (interpersonal) goals can promote increased student investment in linguistic development and participation. A functional approach to academic language development is increasingly promoted as a strategy to prepare language learners to meet the demands of specific disciplines (Lee, Quinn, & Valdés, 2013; Mohan & Slater, 2005; Schleppelgrell, 2013). However it may be important to focus on *students'* interpersonal and ideational functional needs and connect those to the disciplinary academic requirements. While increasingly more complex language will facilitate academic achievement, students' interpersonal relationships are instrumental to the linguistic choices that they make. Researchers who explore the social construction of

knowledge argue that sense-making is integrally intertwined with relationship building, and therefore needs to be considered when promoting academic language use. Bloome has argued (1993, p. 310), "As people act and react to each other, they use language and other semiotic systems to make meaning, to constitute social relationships, and to take social action." While the current focus on functional language is appropriate, teachers and researchers may want to focus on *children's* functional needs (as identified through language transcripts) as well as the demands of the academic discipline. Additionally, a focus on function, instead of on form (Doughty & Williams, 1998; Ellis, Basturkmen, & Loewen, 2002; Swain & Lapkin, 2001) may allow for more natural integration of language and content in elementary contents. Both teachers and students appeared to adapt easily to functional options connected to their communicative goals and existing linguistic resources.

Implication 4

Exposure to increasingly complex language that is attractive to students can amplify the texts upon which they draw during interaction. Inclusion of playful language in safe spaces will encourage students to incorporate new language into their linguistic repertoires. Differentiated enactments of intertextual use of language mediated the shift towards linguistic risk-taking, increased complex language use, and expanded use of functional language used to meet interpersonal and ideational goals. Teachers, therefore, should consider providing students with texts (oral and written) at a variety of complexity levels from which to draw upon.

Implication 5

Teacher-facilitated reporting tasks can move students along the mode continuum and increase use of more complex language use. Gibbons (1998, 2003) identified three steps that can be repeated to promote language development. The first stage is concrete hands-on interactional experiences which promote student interaction. The second stage is described as "teacher guided reporting" in which the teacher helps students describe orally their experiences. The third stage encompasses student writing about teacher-guided oral reports. While the initial informal use of language allows students to take risks and experiment with new language, it is important to assist students in incorporating

this new language of play into academic and written language that can be used to meet more rigorous functional goals needed in academic disciplines.

Implication 6

Teacher-researcher collaborative inquiry can lead to expanded understanding of both linguistic diversity and differentiated instruction, particularly when there is sufficient trust to work through productive tension. There were two main themes that appeared to facilitate the legitimation of differentiated instructional practice on the part of the teacher: (a) the conceptualization of language proficiency as "fluid," mediated by a deeper understanding of strategically essentialized student identities related to home language and linguistic proficiency and (b) the conceptualization of target language as "functional" instead of as a one-size-fits-all target to accompany each content objective. These more nuanced understandings translated into more effective instructional practice in relation to the major findings. However, this process took time and developed throughout the study. At times, there was disagreement about instructional decisions and the nature of linguistic diversity. These disagreements led to more creative instructional options. On the other hand, when there was a lack of disagreement, there was less discussion and less creative thinking. Therefore, a friendly tension may promote more innovative thinking about how to differentiate linguistic support for particular students during teacher-researcher collaborations.

Study Limitations

There were four primary limitations to this study that need to be considered when reflecting upon the findings. The first limitation was the overall number of participants and few focal students that were considered for the analysis. While the five focal students were meant to represent overall trends found in the classroom, school, and literature, individual personalities, relationships in the classroom, and expectations were impossible to separate from overall larger trends in TWI education. Interactional sociolinguistics explores moment-to-moment interactions that illustrate macro structures and themes. However, the implications for educators will have to be interpreted carefully through a lens that includes a deep understanding of each individual context.

A second limitation is the situated nature of the study. While classroom-based data collection was key to the study, it was also difficult to control for variations in the

data collection process. Students were sometimes absent or pulled out of the classroom for instructional support or behavior issues. Additionally, the researcher's presence in the classroom during the study shifted the classroom dynamic. While students appeared to become more aware of their language use during Phase 2 as compared to Phase 1, they were also more aware of their language use throughout the study simply due to my presence and the presence of the microphone. Classrooms are not laboratories and there are multiple unexpected events that affect data collection. Additionally, classroom-based studies cannot be assumed to be exact depictions of classroom life as it would be without the presence of the researcher. Similarly, my relationship with the students and teacher affected their answers during interview situations and it can be assumed that they were adjusting their answers for the audience (me). Therefore, interview data is not to be considered "truth" but instead additional discourse data to be included in the interpretive analysis (Miller, 2010; Slembrouk 2011; Talmy, 2010; Wortham, Mortimer, Lee, Allard, White, 2011).

A third limitation was the difficulty delimiting and defining "language-focused differentiated instruction" for this study. Materials to support students' oral language proficiency development were drawn from a number of resources in collaboration with the classroom teacher. These materials both came from literature (Gibbons, 1998, 2006; Zwiers, 2006, 2008) and were created based on existing classroom procedures and resources. The theories used to create the materials could be transferred to other contexts, however the actual materials would only be applicable for this particular context and unit of study. Additionally, oral language proficiency development was difficult, if not impossible, to separate from other communicative modes. The connection between speaking and writing for language-focused differentiated instruction is an important factor that should be explored in future studies.

A fourth limitation was the difficulty in collaborating with the classroom teacher given his multiple responsibilities and full schedule. While this study was conceptualized as a collaborative effort, many of our most influential discussions occurred for five minutes or less before each lesson when we would review new goals for the day or after each lesson when we did a quick review of student involvement. Changes made to the design were often done based on the teacher's input from these short discussions and

were not recorded. Also, as a researcher I invested a great amount of time preparing the materials before each class. Without the presence of a researcher, however, this work would fall to the teacher who already had an extremely busy schedule. Therefore, it would be important to monitor the practicality of implementing language-focused differentiated instruction during the new units that the third grade team plans to implement.

A fifth limitation was the overall timeline for the research study. Ideally, a DBR study would have a number of iterations and would take more time to complete. By having phase one and phase two so close together, there were limited opportunities to evaluate the discourse samples and make decisions based on the data. Additionally, more time at the end of the study would have allowed for a third SOPA exam, perhaps towards the end or the school year, which would have allowed for an analysis of functional language retention, similar to a delayed post test.

Recommendations for Future Research

To address the limitations listed above and based on what was learned during this iteration of the study, there are a number of recommendations for future research. The recommendations include a need for studies that (a) explore the connections between students' relationship-building and sense-making language, (b) conduct a "backward mapping" from the target academic language for each function (argumentation, persuasion, questioning) to the concrete, daily age-appropriate tasks that afford student interaction during socially sanctioned niches in each content area, (c) analyze the connections between oral language proficiency and literacy development in relation to language-focused differentiated instruction, and (d) look at differentiated emergent bilingual identity development in TWI programs.

As a second iteration of this particular study, all four areas recommended above would be more explicitly described in the instructional design. Specific language would be identified in each task to meet students' ideational *and* interpersonal goals. Language targets would be mapped to promote student language movement from concrete relationship building to sense-making at different proficiency levels. Additionally, a more explicit connection between oral and written tasks would be clearly delineated. Also, a

more explicit effort would be made to collaboratively explore the categories of emergent bilingualism existing in the classroom.

Conclusion

TWI teachers can differentiate language instruction for linguistically diverse students by providing students with access, exposure, and language awareness experiences that allow them to integrate more complex options into their language resources. Constructs such as intertextuality, authenticity and adequation/distinction can assist teachers in reviewing classroom discourse patterns to identify how to facilitate increased student investment in their bilingual development while at the same time introducing increasingly complex functional language into academic tasks.

Additionally, this study provides insight to researchers interested in how participants construct social categories through interaction and negotiate membership in locally created communities. We can construe in-group/out-group membership dichotomies as overly simplistic and, instead, replace these false dichotomies with fluid constructions of negotiated "authentic" membership. There is a creative tension that develops as participants present their authentication moves in an attempt to to claim membership in a multilingual world and validate their rights to own the label of "bilingual." If this claim is accepted by the group, it may be easier for participants to take risks and integrate new language into their repertoires, thereby intertextually drawing on an ever expanding pool of texts. This may be especially true when we look at young children who are developing their newly formed lingusitic identities at the same time as they work to expand bilingual repertoires.

Studies promoting students' academic language development often describe the language that linguistically diverse students should be encouraged to produce in order to participate in rigorous learning experiences (Lee, Quinn, & Valdés, 2013; Schleppelgrell, 2013). However, it is important to remember that students are negotiating their relationships at the same time that they are making sense of content. Sense-making involves collaboratively working through ideas, and with young children, relationship-based factors may be crucial for moving students' language towards more complex linguistic abilities. This study identified a number of strategies that appear to promote increased oral language proficiency development for students with a range of language

resources. However, the findings also illustrate the impact of local engagement with language experiences and the undeniable importance of supporting students in meeting their own interpersonal and ideational goals. Classroom language policies and attempts to integrate language and content will only be successful when student and teacher perceptions of interactional practices are taken into account. Therefore, design and implementation of language-focused differentiated instruction is likely to promote linguistic development to the extent that it can afford (or constrain) the local emergence of bilingual identities in connection with increased language awareness, exposure to a wider variety of complex oral and written texts from which to draw, and access to increased participation within academic learning experiences.

References

Achugar, M., Schleppegrell, M., & Oteiza, T. (2007). Engaging teachers in language analysis: A functional linguistics approach to reflective literacy. *English Teaching: Practice and Critique*, *6*(2), 8–24.

Adair-Hauck, B., & Donato, R. (1994). Foreign language explanations within the zone of proximal development. *The Canadian Modern Language Review*.

Aljaafreh, A., & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, *78*(4), 465–483.

Anberg-Espinosa, M. (2008). *Experiences and perspectives of African American students and their parents in a two-way Spanish immersion program*. (Unpublished doctoral dissertation.) University of San Francisco, CA.

Anderson, R. T. (1999). Loss of gender agreement in L1 attrition: Preliminary results. *Bilingual Research Journal*, *23*(4), 389–408. doi:10.1080/15235882.1999.10162742

Anderson, T., & Shattuck, J. (2012). Design-based research: A decade of progress in education research? *Educational Researcher*, *41*(1), 16–25. doi:10.3102/0013189X11428813

Angélil-Carter, S. (1997). Second language acquisition of spoken and written English: Acquiring the skeptron. *TESOL Quarterly*, 31, 263-287.

Angelova, M., Gunawardena, D., & Volk, D. (2006). Peer teaching and learning: Co-constructing language in a dual language first grade. *Language and Education*, *20*(3), 173–190. doi:10.1080/09500780608668722

Antón, M., & Dicamilla, F. J. (1999). Socio-cognitive functions of L1 collaborative interaction in the L2 classroom. *The Modern Language Journal*, *83*(2), 233–247.

August, D. (1987). Effects of peer tutoring on the second language acquisition of Mexican-American children in elementary school. TESOL Quarterly, 21, 717–736.

August, D., & Shanahan, T. (2006). *Developing literacy in second-language learners: Report of the national literacy panel on language-minority children and youth*. London, UK: Lawrence Erlbaum Associates.

Bailey, B. (2007). Heteroglossia and boundaries. In Monica Heller (Ed.), *Bilingualism: A Social Approach,* 257-274. London, UK: Palgrave.

Bailey, B. (2008). Interactional sociolinguistics. *International Encyclopedia of Communication*, *January*, 2314–2318.

Bakhtin, M. (1981). *The dialogic imagination.* Austin: University of Texas Press.

Ballinger, S. (2013). Towards a cross-linguistic pedagogy: Biliteracy and reciprocal learning strategies in French immersion. *Journal of Immersion and Content-Based Language Education*, *1*(1), 131–148. doi:10.1075/jicb.1.1.06bal

Bannan-Ritland, B. (2003). The role of design in research: The integrative learning design framework. *Educational Researcher*, *32*(1), 21–24.

Bardovi-Harlig, K. (1992) A second look at T-unit analysis: Reconsidering the sentence. *TESOL Quarterly,* 26, 390–5.

Bartlett, L. (2007). Bilingual literacies, social identification, and educational trajectories. *Linguistics and Education*, *18*(3-4), 215–231. doi:10.1016/j.linged.2007.07.005

Bauman, R. (2004). *A world of others' words: Cross-cultural perspectives on intertextuality*. Malden, MA: Blackwell.

Baynham, M. (1996). Humor as an interpersonal resource in adult numeracy classes. Language and Education, 10(2-3), 187-200.

Becker, A. (1994). Repetition and otherness: An essay. In Barbara Johnstone (Ed.), *Repetition in discourse*, vol. 2, 162-175. Norwood, NJ: Ablex.

Becker, B. E., & Luthar, S. S. (2002). Social-emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Educational Psychologist*, *37*(4), 197–214. doi:10.1207/S15326985EP3704

Beeman, K., & Urow, C. (2013). *Teaching for biliteracy: Strengthening bridges between languages. Philadelphia*: Caslon Publishing.

Beltz, J. (2002). Second language play as a representation of the multicompetent self in foreign language study. Journal of Language, Identity, and Education, 1, 13-39.

Beltz, J. (2004). Aspects of advanced foreign language proficiency: Internet-mediated German language play. *International Journal of Applied Linguistics*, 14, 324-362.

Bender, L. A. (2000). *Language planning and language policy in an urban, public school: The interpretation and implementation of a dual language program*. (Unpublished doctoral dissertation). University of Pennsylvania, Philadelphia, PA.

Berger, J., Cohen, B., & Zelditch, M. (1972). Status characteristics and social interaction. *American Sociological Review*, 241-255.

Berry, R. (2006). Inclusion, power, and community: Teachers and students interpret the language of community in an inclusion classroom. *American Educational Research Journal*, 43(3), 489-529.

Bild, E. R. & Swain, M. (1989). Minority language students in a French programme: their French proficiency. Journal of Multilingual and Multicultural Development, 10, 255-274.

Blozowich, D. (2001). *Differentiated instruction in heterogeneously grouped sixth grade classrooms*. (Unpublished doctoral dissertation). Immaculata College, Immaculata, PA.

Bowler, L., & Large, A. (2008). Design-based research for LIS. *Library & Information Science Research*, *30*(1), 39–46. doi:10.1016/j.lisr.2007.06.007

Brimijoin, K. (2001). *Expertise in differentiation: A preservice and an inservice teacher make their way*. (Unpublished doctoral dissertation). University of Virginia, Charlottesville, VA.

Brimijoin, K. (2002). *Expertise in differentiation: A preservice and an inservice teacher make their way*. (Unpublished doctoral dissertation). University of Virginia, Charlottesville, VA.

Brimijoin, K. (2005). Differentiation and high-stakes testing: An oxymoron? *Theory Into Practice*, *44*(3), 254–261.

Brown, A. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *The Journal of Learning Sciences*, *2*(2), 141–178.

Bucholtz, M. (2003). Sociolinguistic nostalgia and the authentication of identity. *Journal of Sociolinguistics*, *7*(3), 398–416. http://doi.org/10.1111/1467-9481.00232

Bucholtz, M., & Hall, K. (2005). Identity and interaction: A sociocultural linguistic approach. *Discourse Studies*, *7*(4-5), 585–614. doi:10.1177/1461445605054407

Center for Applied Linguistics (CAL). (2009). CAL oral proficiency exam and student oral proficiency assessment rating scale. Washington, D.C.: Center for Applied Linguistics.

Callahan, C. M. (1996). A critical self-study of gifted education: Healthy practices, necessary evil, or sedition? *Journal for the Education of the Gifted*, *19*, 148–163.

Callahan, C. M., Moon, T. R., Oh, S., Azano, A. P., & Hailey, E. P. (2015). What works in gifted education: Documenting the effects of an integrated curricular/instructional model for gifted students. *American Educational Research Journal*, *52*(1), 137–167.

Callahan, C., Tomlinson, C., Moon, T., Brighton, C., & Hertberg, H. (2003). *Feasibility of high end learning in the middle grades.* Charlottesville, VA: National Research Center on the Gifted and Talented.

Cammarata, L., & Tedick, D. J. (2012). Balancing Content and Language in Instruction: The Experience of Immersion Teachers. *The Modern Language Journal*, *96*(2), 251–269. doi:10.1111/j.1540-4781.2012.01330.x

Carreira, M. (2007). Spanish-for-native speaker matters: Narrowing the Latino achievement gap through Spanish language instruction. *Heritage Language Journal*, *5*(1), 147–171.

Cashman, H. (2005). Identities at play: Language preference and group membership in bilingual talk in interaction. *Journal of Pragmatics*, 37, 301-315.

Celedón-Pattichis, S., & Turner, E. E. (2012). "Explícame tu respuesta": Supporting the development of mathematical discourse in emergent bilingual kindergarten students. *Bilingual Research Journal*, *35*(2), 197–216. doi:10.1080/15235882.2012.703635

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.

Chesterfield, R. A., Chesterfield, K. B., Hayes-Latimer, K., & Chavez, R. (1983). The influence of teachers and peers on second language acquisition in bilingual preschool programs. *TESOL Quarterly*, 17, 401–419.

Christian, D. (2011). Dual language education. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 3–20). London, UK: Routledge.

Christian, D., & Genesee, F. (Ed.). (2001). *Bilingual Education.* Alexandria, VA: TESOL.

Christie, F., & Unsworth, L. (2000). Developing socially responsible language research. In L. Unsworth (Ed.), *Researching language in schools and communities: Functional linguistic perspectives,* pp. 1-26. London: Bloomsbury Publishing.

Cloud, N., Genesee, F., & Hamayan, E. (2000). *Dual language instruction: A handbook for enriched education*. Boston, MA: Heinle & Heinle.

Cobb, P., Confrey, J., DiSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher*, *32*(1), 9–13. doi:10.3102/0013189X032001009

Cohen, E. G. (1984). Talking and working together: Status, interaction and learning. In P. Peterson, L. C. Wilkinson, & M. Hallinan (Eds.), *Instructional groups in the classroom: Organization and processes* (pp. 171-187). Orlando, FL: Academic.

Cohen, E. G. (1986). *Designing groupwork: Strategies for the heterogeneous classroom*. New York, NY: Teachers College Press.

Cohen, E. G. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research, 64*(1), 1–35.

Cohen, E. G., & Lotan, R. A. (1995). Producing equal-status interaction in the heterogeneous classroom. *American educational research journal, 32*(1), 99–120.

Collective, D. B. R. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher, 32*(1), 5–8.

Collier, V. P., & Thomas, W. P. (2004). The astounding effectiveness of dual language education for all. *NABE Journal of Research and Practice, 2*(1), 1–20.

Coyoca, A. M., & Lee, J. S. (2009). A typology of language-brokering events in dual-language immersion classrooms. *Bilingual Research Journal, 32*(3), 260–279. doi:10.1080/15235880903372837

Craig, H. K., Washington, J. A., & Thompson-Porter, C. (1998). Average C-unit lengths in the discourse of African American children from low income, urban homes. *Journal of Speech, Language, and Hearing Research, 41*(2), 433–444.

Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *The Modern Language Journal, 94*(i), 103–115.

Csikszentmihalyi, M. (1997). Finding flow. New York, NY: Basic Books.

Csikszentmihalyi, M. Rathunde, K., & Whalen, S. (1993). *Talented teenagers: The roots of success and failure*. New York: Cambridge University Press.

Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of educational research, 49(2),* 222-251.

Dagenais, D. (2008). Developing a critical awareness of language diversity in immersion. In T. Fortune & D. Tedick (Eds.), *Pathways to multilingualism: Evolving perspectives on immersion education.* (pp. 201–221). Clevedon, UK: Multilingual Matters.

Dahloff, M. (1971). *Ability grouping, content validity, and curriculum process analysis*. New York, NY: Teachers College Press.

Darling-Hammond, L., & Bransford, J. (Eds.). (2007). *Preparing teachers for a changing world: What teachers should learn and be able to do*. Hoboken, NJ: John Wiley & Sons.

Day, E. M., & Shapson, S. M. (1996). *Studies in immersion education*. Clevedon, UK: Multilingual Matters.

de Jong, E. (2004). L2 proficiency development in a two-way and a developmental bilingual program. *NABE Journal of Research and Practice, 2*(1), 77–108.

de Jong, E. (2011). *Foundations for multiingualism in education: From principles to practice*. Philadelphia: Caslon Publishing.

de Jong, E., Harper, C., & Coady, M. (2013). Enhanced knowledge and skills for elementary mainstream teachers of English language learners. *Theory Into Practice, 52*(2), 89–97. doi:10.1080/00405841.2013.770326

De Jong, E., & Howard, E. (2009). Integration in two-way immersion education: Equalising linguistic benefits for all students. *International Journal of Bilingual Education and Bilingualism, 12*(1), 81–99. http://doi.org/10.1080/13670050802149531

Dick, H. P. (2011). Making immigrants illegal in small-town USA. *Linguistic Anthropology*, *21*, 35–55. http://doi.org/10.1111/j.1548-1395.2011.01096.x.O

Donen, T. (2012). *Formal individualized teaching, a differentiated instructional model, effects on student learning in a high school ACT preparation course.* (Unpublished doctoral dissertation.) Trevecca Nazarene University, Nashville, TN.

Dooly, M. (2005). How aware are they? Research into teachers' attitudes about linguistic diversity. *Language Awareness*, 14(2 and 3), 97–111.

Dorner, L. M., & Layton, A. (2014). "¿Cómo se dice?" Children's multilingual discourses (or interacting, representing, and being) in a first-grade Spanish immersion classroom. *Linguistics and Education*, *25*, 24–39. doi:10.1016/j.linged.2013.12.001

Doughty, C. & Williams, J. (Eds.) (1998). *Focus on form in classroom second language acquisition.* Cambridge University Press.

Ducette, J., Sewell, T., & Shapiro, J. (1996). Diversity in education: Problems and possibilities. In F. B. Murray (Ed.), *The teacher educator's handbook* (pp. 323-381). San Francisco, CA: Jossey-Bass.

Dufva, H., & Alanen, R. (2005). Metalinguistic awareness in dialogue: Bakhtinian considerations. In J.K. Hall, G. Vitanova, & L. Marchenkova (Eds.), *Dialogue with Bakhtin on second and foreign language learning (*pp. 99-118). Mahway, NJ: Lawrence Erlbaum Associates.

Dunn, R., Griggs, S. A., Olson, J., Gorman, B., & Beasley, M. (1995). A meta-analytic validation of the Dunn and Dunn learning styles model. *Journal of Educational Research*, 88 (6), 353-361.

Dutro, S., & Moran, C. (2002). Rethinking English language instruction: An architectural approach. In *English learners: Reaching the highest level of English literacy*. International Reading Association.

Earl, L. (2003). *Assessment as learning: Using classroom assessment to maximize student learning*. Thousand Oaks, CA: Corwin Press.

Early, M. (2001). Language and content in a social practice: A case study. *Canadian Modern Language Review*, 58, 156-179.

Echevarría, J., Vogt, M., & Short, D. (2014). *Making content comprehensible for elementary English learners*. Boston, MA: Pearson.

Ellis, R., & Barkhuizen, G. (2005). *Analysing learner language*. Oxford: Oxford University Press.

Ellis, R., Basturkmen, H., & Loewen, S. (2002). Doing focus-on-form. *System*, *30*(4), 419–432. doi:10.1016/S0346-251X(02)00047-7

Erdos, C., Genesee, F., Savage, R., & Haigh, C. (2010). Individual differences in second language reading outcomes. *International Journal of Bilingualism*, *15*(1), 3–25. doi:10.1177/1367006910371022

Erickson, C. (2010). *Differentiated instruction: Applying the work of C.A. Tomlinson in the primary literacy classroom*. (Unpublished doctoral dissertation.) University of Victoria, BC, Canada.

Escamilla, K., Butvilofsky, S., Escamilla, M., Geisler, D., Hopewell, S., Ruiz, O., & Sparrow, W. (2010). Transitions to biliteracy: Literacy squared. Final Technical Report of Phase 1 of the Literacy Squared Report.

Esquinca, A., Araujo, B., & de la Piedra, M. T. (2014). Meaning making and translanguaging in a two-way dual-language program on the U.S.-Mexico border. *Bilingual Research Journal*, *37*(2), 164–181. http://doi.org/10.1080/15235882.2014.934970

Fairbairn, S., & Jones-Vo, S. (2010). *Differentiating instruction and assessment for English language learners: A guide for K-12 teachers*. Philadelphia, PA: Caslon Publishing.

Felder, R., & Brent, R. (2005). Understanding student differences. *Journal of Engineering Education*, *94*(1), 57–72.

Fishman, J. (1964). Language maintenance and language shift as fields of inquiry. *Linguistics*, 9(32), 32-70.

Fitts, S. (2006). Reconstructing the status quo: Linguistic interaction in a dual-language school. *Bilingual Research Journal*, *29*(2), 337–365.

Fitts, S. (2009). Exploring third space in a dual-language setting: Opportunities and challenges. *Journal of Latinos and Education*, *8*(2), 87–104. http://doi.org/10.1080/15348430902750668

Fletcher, T., Bos, C., & Johnson, L. (1999). Accommodating English language learners with language and learning disabilities in bilingual education classrooms. *Learning Disabilities Research & Practice*, 14, 80-91.

Forsten, C., Grant, J., & Hollas, B. (2002). *Differentiated instruction: Different strategies for different learners*. Peterborough, NH: Crystal Springs Books.

Fortune, T. (2001). *Understanding immersion students' oral language use as a mediator of social interaction in the classroom*. (Unpublished doctoral dissertation.) University of Minnesota, Minneapolis, MN.

Fortune, T., & Arrabo, M. A. (2008). *Attending to immersion language proficiency assessment at the program-level*. Minneapolis, MN: CARLA.

Fortune, T., & Tedick, D. (in press). Oral proficiency assessment of English-proficient K–8 Spanish immersion students. *Modern Language Journal, 99(4)*.

Fortune, T., Tedick, D., & Walker, C. L. (2008). Integrated language and content teaching: Insights from the immersion classroom. In T. Fortune & D. Tedick (Eds.), *Pathways to multilingualism: Evolving perspectives on immersion education.* (pp. 71–97). Clevedon, UK: Multilingual Matters.

Foster, P. (1998). A classroom perspective on the negotiation of meaning. *Applied Linguistics*, *19*(1), 1–23. doi:10.1093/applin/19.1.1

Freeman, Y. S., Freeman, D. E., & Mercuri, S. P. (2005). *Dual language essentials for teachers and administrators*. Portsmouth, NH: Heinemann.

Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly*, *41*(1), 93–99. doi:10.1598/RRQ.41.1.4

Fuchs, L. S., Fuchs, D., & Kazdan, S. (1999). Effects of peer-assisted learning strategies on high school students with serious reading problems. *Remedial and Special Education*, 20, 309–318.

Gamoran, A., & Weinstein, M. (1995). *Differentiation and opportunity in restructured schools*. Madison, WI: Center on Organization and Restructuring of Schools.

García, O. (2008). Multilingual language awareness and teach education. In J. Cenoz and N. H. Hornberger (Eds)., *Encyclopedia of Language and Education, 2nd Edition, Volume 6: Knowledge about Language,* 385-400.

García, O. (2009). *Bilingual education in the 21st century: A global perspective.* West Sussex, UK: Wiley-Blackwell.

García, O., & Sylvan, C. E. (2011). Pedagogies and practices in multilingual classrooms: Singularities in pluralities. *The Modern Language Journal*, *95*(3), 385-400.

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.

Genesee, F. (1987). *Learning through two languages: Studies of immersion and bilingual education.* Rowley, MA: Newbury House.

Genesee, F. (2004). What do we know about bilingual education for majority-language students? In T. J. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism* (pp. 513–576). Malden, MA: Blackwell Publishing, Ltd.

Genesee, F., & Jared, D. (2008). Literacy development in early French immersion programs. *Canadian Psychology/Psychologie Canadienne*, *49*(2), 140–147. doi:10.1037/0708-5591.49.2.140

Genesee, F., & Lindholm-Leary, K. (2013). Two case studies of content-based language education. *Journal of Immersion and Content-Based Language Education*, *1*(1), 3–33.

Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2005). English language learners in U.S. schools: An overview of research findings. *Journal of Education for Students Placed at Risk*, *10*(4), 363–385. doi:10.1207/s15327671espr1004_2

Geva, E. (2006). Second-language oral proficiency and second-language literacy. In D. August & T. Shanahan (Eds.), *Developing literacy in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth* (pp. 123–139). Mahwah, NJ: Lawrence Erlbaum.

Geva, E., & Yaghoub Zadeh, Z. (2006). Reading efficiency in native English-speaking and English-as-a-second-language children: The role of oral proficiency and underlying cognitive-linguistic processes. *Scientific Studies of Reading*, *10*(1), 31-57.

Gibbons, P. (1998). Classroom talk and the learning of new registers in a second language. *Language and Education*, *12*(2), 99–118. doi:10.1080/09500789808666742

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

Gibbons, P. (2003). Mediating language learning: Teacher interactions with ESL students in a content-based classroom. *TESOL Quarterly*, *37*(2), 247–273.

Gibbons, P. (2006). *Bridging discourses in the ESL classroom: Students, teachers, and researchers*. London, UK: Continuum.

Gibbons, P. (2009). *English learners, academic literacy, and thinking: Learning in the challenge zone.* Portsmouth, NH: Heinemann.

Ginsberg, M. B. (2005). Cultural diversity, motivation, and differentiation. *Theory into Practice*, *44*(3), 218–225.

Giouroukakis, V., & Honigsfeld, A. (2010). High-stakes testing and English language learners: Using culturally and linguistically responsive literacy practices in the high school English classroom. *TESOL Journal*, *1*(4), 470–499. doi:10.5054/tj.2010.240193

González, N. (1992). *Child language socialization in Tucson U.S. Mexican households*. (Unpublished doctoral dissertation.) University of Arizona, Tucson, AZ.

Gort, M. (2008). "You give me idea!": Collaborative strides toward bilingualism, biliteracy, and cross-cultural understanding in a Two-Way Partial Immersion Program. *Multicultural Perspectives*, *10*(4), 192–200. doi:10.1080/15210960802526086

Gumperz, J. (1982). *Discourse strategies: Studies in interactional sociolinguistics 1*. Cambridge: Cambridge University Press.

Gutiérrez-Clellen, V. F., Restrepo, M. A., Bedore, L., Peña, E., & Anderson, R. (2000). Language sample analysis in Spanish-speaking children: Methodological considerations. *Language, Speech, and Hearing Services in Schools*, 31, 88-98.

Halliday, M. (1973). *Explorations in the functions of language*. London: Edward Arnold.

Halliday, M. (1993). Towards a language-based theory of learning. *Linguistics and Education*, 5, 93-116.

Halliday, M. (1994). *An introduction to Functional Grammar* (2nd ed.) London: Arnold.

Halliday, M. & Hasan, R. (1985). *Language, context, and text*. Geelong, Victoria: Deakin University Press

Halliday, M. & Matthiessen, C. (1999.) Construing experience through meaning. London, UD: Cassell.

Halliday, M., & Matthiessen, C. (2004). *An introduction to functional grammar*. London: Edward Arnold.

Hamayan, E., & Damico, J. (1991). Developing and using a second language. In Hamayan, E. & Damico, J. (Eds.), *Limiting Bias in the Assessment of Bilingual Students* (pp. 40–75). Austin, TX: Pro-Ed.

Harley, B. (1992). Patterns of second language development in French immersion. *Journal of French Language Studies*, 2(02), 159-183.

Hart, D., Lapkin, S., & Swain, M. (1991). Secondary level immersion French skills: A possible plateau effect. In L. Malave & G. Duquette (Eds.), *Language, culture and cognition* (Vol. 69, pp. 250–265). Clevedon: Multilingual Matters.

Heacox, D. (2009). *Making differentiation a habit*. Minneapolis, MN: Free Spirit Publishing.

Heller, M. (2007). *Bilingualism: A social approach*. London, UK: Palgrave Macmillan.

Henze, R., & Davis, K. A. (Eds.). (1999). Authenticity and identity: Lessons from Indigenous language education [Theme issue]. Anthropology and Education Quarterly, 24 (2).

Hernandez, A. (2011). *Successes and challenges of instructional strategies in two-way bilingual immersion*. (Unpublished doctoral dissertation). California State University of California.

Herrenkohl, L. R., & Guerra, M. R. (1998). Participant structures, scientific discourse, and student engagement in fourth grade. *Cognition and instruction*, *16*(4), 431-473.

Hickey, T. M. (2007). Children's language networks in minority language immersion: What goes in may not come out. *Language and Education*, *21*(1), 46–65. doi:10.2167/le617.0

Hicks, D. (1996). *Discourse, learning, and schooling*. Cambridge: Cambridge University Press.

Hootstein, E. (1998). *Differentiation of instructional methodologies in subject-based curricula at the secondary level*. Richmond, VA: Metropolitan Educational Research Consortium. (ERIC Document Reproduction Service No. ED 427 130)

Howard, E., Christian, D., & Genesee, F. (2004). *The development of bilingualism and biliteracy from grade 3 to 5: A summary of findings from the CAL/CREDE study of two-way immersion education*. Berkeley, CA: Center for Research on Education, Diversity & Excellence.

Howard, E., Sugarman, J., & Christian, D. (2003). *Trends in two-way immersion education: A review of the research*. Baltimore, MD: The Center for Research on the Education of Students Placed at Risk.

Huang, J., & Mohan, B. (2009). A functional approach to integrated assessment of teacher support and student discourse development in an elementary Chinese program. *Linguistics and Education*, *20*(1), 22–38. http://doi.org/10.1016/j.linged.2009.01.006

Hunsaker, S. L., Nielsen, A., & Bartlett, B. (2010). Correlates of teacher practices influencing student outcomes in reading instruction for advanced readers. *Gifted Child Quarterly*, *54*(4), 273-282.

Hunt, K. W. (1970). Syntactic maturity in schoolchildren and adults. *Monographs of the Society for Research in Child Development*, 35, (1, Serial No. 134).

Iglesias, A., & Rojas, R. (2012). Bilingual language development of English language learners: Modeling the growth of two languages. In Goldstein, B. A. (Ed.), *Bilingual Language Development and Disorders in Spanish and English Speakers* (pp. 3–30). Baltimore, MD: Brookes Publishing Co.

Ihle, F. (2011). *Using language knowledge to comprehend academic discourse*. (Unpublished doctoral dissertation.) University of Kansas, Lawrence, KA.

Johnsen, S. (2003). Adapting instruction with heterogeneous groups. *Gifted Child Today*, 26(3), 5- 6.

Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Company.

Johnson, D. W., & Johnson, R. T. (2005). New developments in social interdependence theory. *Genetic, Social, and General Psychology Monographs*, *131*(4), 285–358.

Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher*, *38*(5), 365–379. doi:10.3102/0013189X09339057

Johnson, R., & Swain, M. (Eds.). (1997). *Immersion education: International perspectives*. New York, NY: Cambridge University Press.

Kaptain, H. (2010). *Primary students' proficiency and achievement: The difference two-way immersion programs can make*. (Unpublished doctoral dissertation.) Iowa State University, Iowa City, IA.

Klecan-Aker, J. S. & Hedrick, D. L. (1985). A study of the syntactic language skills of normal school-age children. *Language, Speech, and Hearing Services in Schools*, 16, 187-198.

Klee, C. (2011). Migration, ethnic identity and heritage language maintenance of Spanish-speaking youth in English-speaking societies: A reexamination. In K. Potowski and J. Rothman (Eds.), *Bilingual youth: Spanish speakers in English-speaking societies*, (pp. 355-368). Amsterdam: John Benjamins.

Klee, C., & Lynch, A. (2009). *El español en contacto con otras lenguas*. Washington, D.C.: Georgetown University Press.

Klee, T., & Fitzgerald, M. D. (1985). The relation between grammatical development and mean length of utterance in morphemes. *Journal of Child Language*, 12, 251-269.

Kovelman, I., Baker, S., & Petitto, L. (2008). Age of first bilingual language exposure as a new window into bilingual reading development. *Bilingualism: Language and Cognition*, *11*(2), 203–223. http://doi.org/10.1017/S1366728908003386

Kramsch, C. (2009). *The multilingual subject*. Oxford: Oxford University Press.

Kulik, J., (1992). *An Analysis of the Research on Ability Grouping: Historical and Contemporary Perspectives*. Storrs, CT: National Research Center on the Gifted and Talented.

Kovalainen, M., & Kumpulainen, K. (2005). The discursive practice of participation in an elementary classroom community. *Instructional Science*, *33*(3), 213–250. http://doi.org/10.1007/s11251-005-2810-1

Kumpulainen, K., & Mutanen, M. (1999). The situated dynamics of peer group interaction: An introduction to an analytic framework. *Learning and Instruction*, *9*(5), 449–473. doi:10.1016/S0959-4752(98)00038-3

Ladson-Billings, G. (2009). *The dreamkeepers: Successful teachers of African American children*. San Francisco: Jossey-Bass.

Laine, J. E. (1978). A language analysis of successful and nonsuccessful readers: Comparing linguistic ability in Black, Chicano and Anglo boys. *Journal of Black Studies*, 8, 439-451.

Lapkin, S., & Swain, M. (2000). What underlies immersion students' production: The case of avoiv besoin de. *Foreign Language Annals*, *37*(3), 349–355.

Larsen-Freeman, Diane (2004). CA for SLA? It all depends . . . *The Modern Language Journal,* 84, 603–607.

Larsen-Freeman, D. (2009). Adjusting expectations: The study of complexity, accuracy, and fluency in second language acquisition. *Applied Linguistics*, *30*(4), 579–589. doi:10.1093/applin/amp043

Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge: Cambridge University Press.

Leander, K. (2002). Locating Latanya: The situated production of identity artifacts in classroom interaction. *Research in the Teaching English*. 37, 198-250.

Leckie, A. G., Kaplan, S. E., & Rubinstein-Avila, E. (2013). The need for speed: a critical discourse analysis of the reclassification of English language learners in Arizona. *Language Policy*, *12*(2), 159-176.

Lee, J. S., Hill-Bonnet, L., & Raley, J. (2011). Examining the effects of language brokering on student identities and learning opportunities in dual immersion classrooms. *Journal of Language, Identity & Education*, *10*(5), 306–326. doi:10.1080/15348458.2011.614544

Lee, O., Quinn, H., & Valdés, G. (2013). Science and language for English language learners in relation to next generation science standards and with implications for common core state standards for English language arts and mathematics. *Educational Researcher*, *42*(4), 223–233. http://doi.org/10.3102/0013189X13480524

Lemke, J. (1990). *Talking science: Language, learning, and values*. Norwood, NJ: Ablex Publishing Corporation.

Loban, W. (1963). *The language of elementary school children*. Urbana, IL: National Council of Teachers of English.

Li Wei. (2011). Moment Analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Journal of Pragmatics*, *43*(5), 1222–1235. http://doi.org/10.1016/j.pragma.2010.07.035

Lightbown, P., & Spada, N. (2006). *How languages are learned*. Oxford, U.K.: Oxford University Press.

Lindholm-Leary, K. (2001). *Dual language education*. *Dual language education*. Clevedon, UK: Multilingual Matters.

Lindholm-Leary, K., & Howard, E. R. (2008). Language development and academic achievement in two-way immersion programs. In T. Fortune & D. J. Tedick (Eds.), *Pathways to multilingualism: Evolving perspectives on immersion education* (pp. 177–201). Clevedon, UK: Multilingual Matters.

Llinares, A., & Morton, T. (2010). Historical explanations as situated practice in content and language integrated learning. *Classroom Discourse*, *1*(1), 46–65. doi:10.1080/19463011003750681

Llinares, A., Morton, T., & Whittaker, R. (2012). *The roles of language in CLIL*. Cambridge, UK: Cambridge University Press.

Loban, W. (1976). *Language development: Kindergarten through age twelve*. Urbana, IL: National Council of Teachers of English.

Lou, Y., Abrami, P., Spence, J., Poulsen, C., Chambers, B., & d'Apollonia, S. (1996). Within-class grouping: A meta-analysis. *Review of Educational Research*, 66, 423-458.

Lucas, T., & Villegas, A. (2013). Preparing linguistically responsive teachers: Laying the foundation in preservice teacher education. *Theory Into Practice*, *52*(2), 98–109. doi:10.1080/00405841.2013.770327

Lucas, T., Villegas, A. M., & Freedson-Gonzalez, M. (2008). Linguistically responsive teacher education preparing classroom teachers to teach English language learners. *Journal of Teacher Education*, *59*(4), 361-373.

Lynch, A. (2003). The relationship between second and heritage language acquisition: Notes on research and theory building. *The Heritage Language Journal*, *1*(1).

Lyster, R. (2004). Research on form-focused instruction in immersion classrooms: implications for theory and practice. *Journal of French Language Studies*, *14*(3), 321–341. doi:10.1017/S0959269504001826

Lyster, R. (2007). *Learning and teaching languages through content: A counterbalanced approach*. Amsterdam: John Benjamins Publishers.

Lyster, R., & Mori, H. (2008). Instructional counterbalance in immersion pedagogy. In T. Fortune & D. Tedick (Eds.), *Pathways to multilingualism: Evolving perspectives on immersion education.* (pp. 133–152). Clevedon, UK: Multilingual Matters.

Lyster, R., & Saito, K. (2010). Oral feedback in classroom SLA: A meta-analysis. *Studies in Second Language Acquisition*, *32*, 265–302. http://doi.org/10.1017/S0272263109990520

Mackey, A. (1999). Input, interaction, and second language development. *SSLA*, *21*, 557–587.

Martin-Beltrán, M. (2009). Cultivating space for the language boomerang: The interplay of two languages as academic resources. *English Teaching: Practice and Critique*, *8*(2), 25–53.

Martin-Beltrán, M. (2010). Positioning proficiency: How students and teachers (de)construct language proficiency at school. *Linguistics and Education*, *21*(4), 257–281. doi:10.1016/j.linged.2010.09.002

Martín-Jones, M., & Jones, K. (2000). *Introduction: Multilingual literacies.* In M. Martin-Jones & K. Jones (Eds.), Multilingual literacies: Reading and writing in different worlds (pp. 1-15). Amsterdam: John Benjamins.

Mastropieri, M.A., Scruggs, T.E., Norland, J.J., Berkeley, S., McDuffie, K., & Tornquist, E.H. & Connors, N. (2006). Differentiated curriculum enhancement in inclusive middle school science: Effects on classroom and high-stakes tests. *The Journal of Special Education, 40*(3), 130-137.

Maxcy, S. (2003). Pragmatic threads in mixed methods research in the social sciences: The search for multiple modes of inquiry and the end of the philosophy of formalism. In A. Tashakkori & C. Teddie (Eds.), Handbook of mixed methods in social and behavioral research (pp. 51-89). Thousand Oaks, CA: Sage.

McCarty, T. L., & Wyman, L. T. (2009). Indigenous youth and bilingualism—theory, research, praxis. *Journal of Language, Identity & Education*, *8*(5), 279–290. doi:10.1080/15348450903305031

McIntosh, R., Vaughn S., Schumm, J., Haager, D., & Lee, O. (1993). Observations of students with learning disabilities in general education classrooms. *Exceptional Children*, 60(3), 249-261.

McKay, S., & Wong, S. L. (1996). Multiple discourses, multiple identities: Investment and agency in second-language learning among Chinese adolescent immigrant students. *Harvard Educational Review*, 66, 577-608.

MacSwan, J. (2005). The "non-non" crisis and academic bias in native language assessment of linguistic minorities. In J. Cohen, K. T. McAlister, K. Rolstad, & J. MacSwan (Eds.), *Proceedings of the 4th International Symposium on Bilingualism*, (pp.1415-1422). Somerville, MA: Cascadilla Press.

Mehan, H. (1979). *Learning lessons: Social organization in a classroom.* Cambridge, MA: Harvard University Press.

Mehan, H. (1998). The study of social interaction in educational settings: Accomplishments and unresolved issues. *Human Development*, *41*(4), 245–269.

Mehan, H. (2008). Engaging the sociological imagination: My journey into design research and public sociology. *Anthropology & Education Quarterly*, *39*(1), 77–91. doi:10.1111/j.1548-1492.2008.00006.x.77

Melby-Lervåg, M., & Lervåg, A. (2011). Cross-linguistic transfer of oral language, decoding, phonological awareness and reading comprehension: a meta-analysis of the correlational evidence. *Journal of Research in Reading*, *34*(1), 114–135. doi:10.1111/j.1467-9817.2010.01477.x

Mercer, N. (1996). The quality of talk in children's collaborative activity in the classroom. *Learning and Instruction*, *6*(4), 359–377. doi:10.1016/S0959-4752(96)00021-7

Mercer, N. (2010). The analysis of classroom talk: methods and methodologies. *The British Journal of Educational Psychology*, *80*(1), 1–14. doi:10.1348/000709909X479853

Met, M. & Lorenz, E. (1997). Lessons from U.S. immersion programs. In R. Johnson (Ed.), *Immersion education: International perspectives* (pp. 244-264). Cambridge, UK: Cambridge Applied Linguistics.

Mikulski, A. M. (2006). *Native intuitions, foreign struggles? knowledge of the subjunctive in volitional constructions among heritage and traditional FL learners of Spanish*. (Unpublished doctoral dissertation.) University of Iowa, Iowa City, IA.

Mikulski, A., & Elola, I. (2013). Heritage and foreign language learner use of the Spanish subjunctive in advice. *Heritage Language Journal*, *10*(1), 51–82.

Miller, E. R. (2010). Indeterminacy and interview research: Co-constructing ambiguity and clarity in interviews with an adult immigrant learner of English. *Applied Linguistics*, *32*(1), 43–59. http://doi.org/10.1093/applin/amq039

Miller, J. (1991). Quantifying productive language disorders. In J. Miller (Ed.), *Research on child language disorders: A decade of progress* (pp. 211-220). Austin, TX: Pro-Ed.

Miller, J. F., Andriacchi, K., & Nockerts, A. (2011). *Assessing language production using SALT software*. Middleton, WI: SALT Software, LLC.

Miller, J. F., Iglesias, A. (2008). *Systematic analysis of language transcripts* (SALT), Bilingual SE version 2008 [computer software]. SALT Software, LLC.

Miller, J., Heilmann, J., Nockerts, A., Iglesias, A., Fabiano, L., & Francis, D. (2006). Oral language and reading in bilingual children. *Journal of Learning Disabilities Research to Practice*, 21 (1), 30-43.

Mohan, B., & Beckett, G. (2003). A functional approach to research on content-based language learning: Recasts in causal explanations. *Modern Language Journal*, *87*(3), 421–432.

Mohan, B., & Slater, T. (2005). A functional perspective on the critical "theory/practice" relation in teaching language and science. *Linguistics and Education*, *16*(2), 151–172. doi:10.1016/j.linged.2006.01.008

Moje, E. B., Ciechanowski, K. M., Kramer, K., Ellis, L., Carrillo, R.,& Collazo, T. (2004).Working toward third space in content area literacy: An examination of everyday funds of knowledge and discourse. *Reading Research Quarterly*, 39(1), 38–70.

Montrul, S. (2005). Second language acquisition and first language loss in adult early bilinguals: exploring some differences and similarities. *Second Language Research*, *21*(3), 199–249. doi:10.1191/0267658305sr247oa

Montrul, S. (2012). The grammatical competence of Spanish heritage speakers. In Beaudrie, S & Fairclough, M (Eds.), *Spanish as a Heritage Language in the United States: The State of the Field* (pp. 101–120). Washington, D.C.: Georgetown University Press.

Montrul, S., & Potowsk, K. (2007). Command of gender agreement in school-age Spanish-English bilingual children. *International Journal of Bilingualism*, *11*(3), 301–328.

Moon, T., Tomlinson, C., & Callahan, C. (1995). *Academic diversity in the middle school: Results of a national survey of middle school administrators and teachers*. Charlottesville, VA: National Research Center on the Gifted and Talented.

Muntean, B. (2011). *Academic and social experiences of Spanish native speakers in an immersion program*. (Unpublished doctoral dissertation.) University of New Orleans, LA.

Nason, M. A. (2012). *"If I am losing them, I'm going to change. So that's what we did!": Third grade teachers contemplate the literacy needs of diverse students within a teacher study group*. Goergia State University, Altanta, GA.

Norris, J. M. and L. Ortega. (2003). Defining and measuring SLA. In C. Doughty and M. Long (Eds), *Handbook of Second Language Acquisition (pp. 717-763)*. Malden, MA: Blackwell.

Norris, J. M., & Ortega, L. (2009). Towards an organic approach to investigating CAF in Instructed SLA: The case of complexity. *Applied Linguistics*, *30*(4), 555–578. doi:10.1093/applin/amp044

Norton Pierce, B. (1995). Social identity, investment, and language learning. *TESOL Quarterly*, 29, 9-31.

Norton, B., & Toohey, K. (2001). Changing perspectives on good language learners. *TESOL Quarterly*, *35*(2), 307–322.

Norton, B., & Toohey, K. (2011). Identity, language learning, and social change. *Language Teaching*, *44*(04), 412–446. http://doi.org/10.1017/S0261444811000309

O'Donnell, C. L. (2008). Defining, conceptualizing, and measuring fidelity of implementation and its relationship to outcomes in K-12 curriculum intervention research. *Review of Educational Research*, *78*, 33–84.

O'Donnell, R. C., Griffin, W. J., & Norris, R. D. (1967). Syntax of kindergarten and elementary school children: A transformational analysis. *Research Report No. 8*. Champaign, IL: National Council of Teachers of English.

Olmedo, I. (2003). Language mediation among emergent bilingual children. *Linguistics and Education*, *14*(2), 143–162. doi:10.1016/S0898-5898(03)00033-0

Ovando, C., Combs, M. C., & Collier, V. (2006). *Bilingual and ESL classrooms: Teaching in multicultural contexts (4th ed.)*. Boston: McGraw-Hill.

Paris, D. (2010). Texting identities: Lessons for classrooms from multiethnic youth space. *English Education*, 278-292.

Paris, D. (2010). "The second language of the United States": Youth perspectives on Spanish in a changing multiethnic community. *Journal of Language, Identity, and Education*, *9*(2), 139-155.

Palincsar, A. S. (1986). The role of dialogue in providing scaffolded instruction. *Educational Psychologist*, *21*(1-2), 73–98.

Palincsar, A., Collins, K. M., Marano, N. L., & Magnusson, S. J. (2000). Investigating the engagement and learning of students with learning disabilities in guided inquiry. *Language, Speech, and Hearing Services in Schools*, *31*(July), 240–251.

Palmer, D. (2007). Building and destroying students' "academic identities": The power of discourse in a two   way immersion classroom. *International Journal of Qualitative Studies in Education*, *21*(6), 647–667. doi:10.1080/09518390701470537

Parker, M. & Brorson, K. (2005). A comparative study between mean length of utterance in morphemes (MLUm) and mean length of utterance in words (MLUw). *First Language*, 25 (3), 365-376.

Parkes, J., Ruth, T., Anberg-Espinoza, M., & De Jong, E. (2009). *Urgent research questions and issues in dual language education*. Albuquerque, NM: Dual Language Researcher Convocation Report.

Parsons, S. A., Dodman, S. L., & Burrowbridge, S. C. (2013). Broadening the view of differentiated instruction. *Phi Delta Kappan*, 95(1), 38-42.

Patton, M. (2002). *Qualitative research and evaluation methods* (Third Edition.). Thousand Oaks, CA: Sage Publications.

Paulston, C. B. (1982). *Swedish research and debate about bilingualism*. Stockholm: National Swedish Board of Education.

Peck, S. (1987). Signs of learning: Child nonnative speakers in tutoring sessions with a child native speaker. Language Learning, 37, 545–571.

Pica, T. (1994). Research on negotiation: What does it reveal about second-language learning conditions, processes, and outcomes? *Language Learning*, *44*(3), 493–527.

Pomerantz, A., & Bell, N. D. (2011). Humor as Safe House in the Foreign Language Classroom. *The Modern Language Journal*, *95*, 148–161. http://doi.org/10.1111/j.1540-4781.2011.01274.x

Potowski, K. (2007a). Characteristics of the Spanish grammar and sociolinguistic proficiency of dual immersion graduates. *Spanish in Context*, *4*(2), 187–216.

Potowski, K. (2007b). *Language and identity in a dual immersion school*. Clevedon, UK: Multilingual Matters.

Potowski, K., Jegerski, J., & Morgan-Short, K. (2009). The effects of instruction on linguistic development in Spanish heritage language speakers. *Language Learning*, *59*(3), 537–579.

Poveda, D. (2005). Metalinguistic activity, humor, and social competence in classroom discourse. *Pragmatics*, 15, 89-107.

Rampton, B. (1999). Deutsch in inner London and the animation of an instructed foreign language. *Journal of Sociolinguistics*, 3-4, 480-504.

Rampton, B. (2006). *Language in late modernity*. Cambridge: Cambridge University Press.

Reis, S., Neu, T., & McGuire, J. (1997). Case studies of high-ability students with learning disabilities who have achieved. *Exceptional Children*, 63, 463-479.

Richard-Amato, P. (1988). *Making it happen: Interaction in the second language classroom*. White Plains, NY: Longman.

Robinson, G. (2010). *Culturally responsive beliefs and practices of general and special education teachers implementing response to intervention (RTI) in diverse elementary schools*. (Unpublished doctoral dissertation.) University of North Carolina, Greensboro, NC.

Rojas, R., & Iglesias, A. (2009). Making a case for language sampling. *American Speech-Language-Hearing Association Leader*, *March 3*, 1–4.

Rojas, R., & Iglesias, A. (2013). The language growth of Spanish speaking English language learners. *Child development*, *84*(2), 630-646.

Rosenholtz, S., & Wilson, B. (1980). The effect of classroom structure on shared perceptions of ability. *American Educational Research Journal*, *17*(1), 75–82.

Rymes, B. (2009). *Classroom discourse analysis: A tool for critical reflection*. Cresskill, NJ: Hampton Press.

Saenz, L., Fuchs, L. S., & Fuchs, D. (2005). Peer-assisted learning strategies for English language learners with learning disabilities. *Exceptional Children*, *71*(3), 231–247.

Saldaña, J. (2012). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage Publications.

Sanchez, V., Steckler, A., Nitirat, P., Hallfors, H., Cho, H., & Brodish, P. (2007). Fidelity of implementation in a treatment of effectiveness trial of reconnecting youth. *Health Education Research*, *22*, 95–107.

Sandoval, W. (2014). Conjecture mapping: An approach to systematic educational design research. *Journal of the Learning Sciences*, 23(1), 18–36. doi:10.1080/10508406.2013.778204

Santamaria, L. J. (2009). Culturally responsive differentiated instruction: Narrowing gaps between best pedagogical practices benefiting all learners. *Teachers College Record*, 111(1), 214–247.

Saville-Troike, M. (1984). What really matters in second language learning for academic achievement? *TESOL Quarterly*, 18, 199–219.

Schlechty, P. (1997). *Inventing better schools: An action plan for educational reform*. San Francisco: Jossey-Bass.

Schleppegrell, M. (2004). *The language of schooling*. New York, NY: Routledge.

Schleppegrell, M. J. (2013). The role of metalanguage in supporting academic language development. *Language Learning*, *63*(March), 153–170. doi:10.1111/j.1467-9922.2012.00742.x

Schleppegrell, M., Achugar, M., & Orteíza, T. (2004). The grammar of history: Enhancing content-based instruction through a functional focus on language. *TESOL Quarterly*, *38*(1), 67–94.

Schleppegrell, M., & O'Hallaron, C. L. (2011). Teaching academic language in L2 secondary settings. *Annual Review of Applied Linguistics*, *31*, 3–18. doi:10.1017/S0267190511000067

Schmidt, R. (1993). Awareness and second language acquisition. *Annual Review of Applied Linguistics*, 13, 206-226.

Schreffler, S. B. (2007). Hispanic heritage language speakers in the United States: Linguistic exclusion in education. *Critical Inquiry in Language Studies*, *4*(1), 25–34. http://doi.org/10.1080/15427580701340683

Schumm, J., & Vaughn, S. (1991). Making adaptations for mainstreamed students: General classroom teachers' perspectives. *Remedial and Special Education*, 12(4), 18-27.

Schumm, J., & Vaughn, S. (1992). Planning for mainstreamed special education students: Perceptions of general classroom teachers. *Exceptionality*, 3, 81-98.

Scruggs, T. E., & Mastropieri, M. A. (1998). Peer tutoring and students with special needs. In K. Topping & S. Ehly (Eds.), *Peer assisted learning* (pp. 165–182). Mahwah, NJ: Erlbaum.

Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27, 4-13.

Sfard, A. & Kieran, C. (2001). Cognition as communication: Rethinking learning-by-talking through multifaceted analysis of students' mathematical interaction. *Mind, Culture, and Activity*, 8, 42-76.

Shanahan, T., & Lonigan, C. J. (2010). The national early literacy panel: A summary of the process and the report. *Educational Researcher*, *39*(4), 279-285.

Sharan, Y., & Sharan, S. (1992). *Expanding cooperative learning through group investigation*. New York: Teachers College Press.

Shohamy, E. (2006). *Language policy: Hidden agendas and new approaches.* London and New York: Routledge.

Silva-Corvalán, C. (1991). 11 Spanish language attrition in a contact situation with English. In H. Seliger & R. Vago (Eds.), *First language attrition*, (pp. 151-169). Cambridge, U.K.: Cambridge University Press.

Simpkins, P.M., Mastropieri, M.A., & Scruggs, T.E. (2009). Differentiated curriculum enhancements in inclusive fifth-grade science classes. *Remedial and Special Education, 30*(5), 300-308.

Sinclair, J. & Coulthard, R. (1975). *Towards an analysis of discourse: The English used by teachers and pupils.* London, Oxford.

Skehan, P. (2001). Tasks and language performance assessment. In M. Bygate, P. Skehan, and M. Swain (Eds.), *Researching pedagogic tasks, second language learning, teaching and testing*. London, UK: Longman.

Skehan, P. (2009). Modeling second language performance: Integrating complexity, accuracy, fluency, and lexis. *Applied Linguistics*, *30*(4), 510–532. doi:10.1093/applin/amp047

Skutnabb-Kangas, T. (1981). *Bilingualism or not? The education of minorities.* Clevedon, England: Multilingual Matters.

Slembrouck, S. (2011). The research interview as a test: Alignment to boundary, topic, and interactional leeway in parental accounts of a child protection procedure. *Language in Society*, *40*(01), 51–61. doi:10.1017/S0047404510000886

Souto-Manning, M. (2012). Critical narrative analysis: the interplay of critical discourse and narrative analyses. *International Journal of Qualitative Studies in Education*, http://dx.doi.org/10.1080/09518398.2012.737046

Spada, N. (2011). Beyond form-focused instruction: Reflections on past, present and future research. *Language Teaching*, *44*(02), 225–236. doi:10.1017/S0261444810000224

Spada, N., & Lightbown, P. (2008). Form-focused instruction: Isolated or integrated? *TESOL Quarterly*, *42*(2), 181–207.

Stavroula, V., Leonidas, K., & Mary, K. (2011). *Investigating the impact of differentiated instruction in mixed ability classrooms: It's impact on the quality and equity dimensions of education effectiveness.* Limassol, Cyprus: International Congress for School Effectiveness and Improvement.

Sternberg, R. J. & Zhang, L. (2005). Styles of thinking as a basis of differentiated instruction. *Theory Into Practice*, 44(3), 245-235.

Stipek, D., Ryan, R., & Alarco, R. (2001). Bridging research and practice to develop a two-way bilingual program. *Early Childhood Research Quarterly*, *16*, 133–149.

Storch, N. (2001). How collaborative is pair work? ESL tertiary students composing in pairs. *Language Teaching Research*, *5*(1), 29–53.

Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(7), 935-947.

Sugarman, J. (2012). *Equity in Spanish/English dual language education: Practitioners' perspectives*. (Unpublished doctoral dissertation.) University of Maryland, College Park, MD.

Swain, M. (1998). Focus on form through conscious reflection. In C. Doughty & J. Williams (eds.), *Focus on form in classroom second language acquisition*, (64-81). Cambridge, U.K.: Cambridge Applied Linguistics.

Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural theory & second language learning* (pp. 97–114). Oxford, UK: Oxford University Press.

Swain, M., & Lapkin, S. (1982). *Evaluating bilingual education: A Canadian case study*. Clevedon, UK: Multilingual Matters.

Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics*, *16*(3), 371–392.

Swain, M., & Lapkin, S. (2001). Focus on form through collaborative dialogue: Exploring task effects. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching Pedagogic Tasks: Second language learning, teaching and testing* (pp. 99–118). N.J.: Pearson Education ESL.

Swain, M., & Lapkin, S. (2002). Talking it through: Two French immersion learners' response to reformulation. *International Journal of Educational Research*, *37*(3-4), 285–304. doi:10.1016/S0883-0355(03)00006-5

Swain, M., & Lapkin, S. (2005). The evolving sociopolitical context of immersion education in Canada: Some implications for program development. *International Journal of Applied Linguistics*, *15*(2), 169–187.

Swain, M., Brooks, L., & Tocalli-Beller, A. (2002). Peer-peer dialogue as a means of second language learning. *Annual Review of Applied Linguistics*, *22*, 171–185.

Talmy, S. (2010). Qualitative interviews in applied linguistics: From research instrument to social practice. *Annual Review of Applied Linguistics*, *30*(2010), 128–148. http://doi.org/10.1017/S0267190510000085

Tang, G. (1997). Teaching content knowledge and ESL in multicultural classrooms. In M. A. Snow & D. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 69-77). New York: Longman.

Tedick, D. J. & Young, A. I. (2014). Fifth grade two-way immersion students' responses to form-focused instruction. *Journal of Applied Linguistics*. doi: 10.1093/applin/amu066

Thomas, W., Collier, V., & Collier, K. (2010). English learners in North Carolina: Final Report, 2010. NC: North Carolina Department of Public Instruction.

Thompson, L. E., Boyson, B. A., & Rhodes, N.C. (2006). Student oral proficiency assessment (SOPA) administrator's manual. Washington, DC: Center for Applied Linguistics and Ames, IA: Iowa State University National K–12 Foreign Language Resource Center.

Tieso, C. (2002). *The effects of grouping and curricular practices on intermediate students' math achievement.* (Research Monograph 02154). Charlottesville, VA: National Research Center on the Gifted and Talented.

Tobin, R. (2007). Differentiating in the Language Arts: Flexible options to support all students. *Canadian Children*, 32(2), 11-17.

Tomlinson, C. A. (1995). *How to differentiate in mixed-ability classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A. (2000). Reconcilable differences: Standards-based teaching and differentiation. *Educational Leadership*, 58(1), 6-11.

Tomlinson, C. A. (2001). Grading for success. *Educational Leadership*, 58(6), 12-15.

Tomlinson, C. A. (2003a). Deciding to teach them all. *Educational Leadership*, 61(2), 6-11.

Tomlinson, C. A. (2003b). *Fulfilling the promise of the differentiated classroom: Strategies and tools for responsive teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A. (2004a). Differentiation in diverse settings. *School Administrator*, 61(7), 28- 35.

Tomlinson, C. A. (2004b). The Möbius effect: Addressing learner variance in schools. *Journal of Learning Disabilities*, 37(6), 516-524.

Tomlinson, C. A. (2005a). Differentiating instruction: Why bother? *Middle Ground*, 9(1), 12-14.

Tomlinson, C. A. (2005b). Traveling the road to differentiation in staff development. *National Staff Development Council*, 26(4), 8-12.

Tomlinson, C.A. (2010a). *Leading and managing: A differentiated classroom*. Alexandria, VA: ASCD.

Tomlinson, C. A. (2010b). *Differentiation model*. Retrieved from http://www.diffcentral.com/model.html

Tomlinson, C. A. (2014). *Differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A. & Allan, S. D. (2000). *Leadership for differentiating in schools and classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A., & Callahan, C. (1992). Contributions of gifted education to general education in a time of change. *Gifted Child Quarterly*, 36 (4), 183-188.

Tomlinson, C. A., & Doubet, K. (2005). Reach them to teach them. *Educational Leadership*, 62(7), 8-15.

Tomlinson, C. A., & Eidson, C. (2003). *Differentiation in practice: A resource book for Differentiating curriculum: Grades 5-9*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A., & Imbeau, M. (2010). *Leading and managing a differentiated classroom*. Washington, D.C.: ASCD.

Tomlinson, C. A., & Kalbfleisch, L. (1998). Teach me, teach my brain: A call for differentiated classrooms. *Educational Leadership*, 56(3), 52-55.

Tomlinson, C. A., & McTighe, J. (2006). *Integrating differentiated instruction & understanding by design: Connecting content and kids*. Alexandria, VA: ASCD.

Tomlinson, C. A., & Moon, T. R. (2013). *Assessment and student success in a differentiated classroom*. Washington, D.C.: ASCD.

Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C. M., Moon, T. R., Brimijoin, K., Conover, L. A., & Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, *27*(2), 119–145.

Tomlinson, C., A., Callahan, C., & Lelli, K. (1997). Challenging expectations: Case studies of high-potential, culturally diverse young children. *Gifted Child Quarterly*, 41(2), 5-17.

Tomlinson, C., Callahan, C., Tomchin, E., Eiss, N., Imbeau, M., & Landrum, M. (1997). Becoming architects of communities of learning: Addressing academic diversity in contemporary classrooms. *Exceptional Children*, 63, 269-282.

Tomlinson, C.A. & Imbeau, M. (2010). *Leading and managing: A differentiated classroom*. Alexandria, VA: ASCD.

Trester, A. M. (2012). Framing entextualization in improv: Intertextuality as an interactional resource. *Language in Society*, *41*(02), 237–258. http://doi.org/10.1017/S0047404512000061

Valdés, G. (1996). *Con respeto: Bridging the distances between culturally diverse families and schools*. New York: Teachers College Press.

Valdés, G. (1997a). Dual-language immersion programs: A cautionary note concerning the education of language-minority students. *Harvard Business Review*, *67*(3), 391–230.

Valdés, G. (1997b). The teaching of Spanish to Hispanic bilinguals: Outstanding issues and unanswered questions. In M. C. Colombi & F. X. Alarcón (Eds.), *La enseñanza del español a hispanohablantes* (pp. 8–44). Boston: Houghton Mifflin.

Valdés, G. (2001). *Learning and not learning English: Latino students in American schools*. New York, NY: Teachers College Press.

van Dam, J. (2002). Ritual, face, and play in a first English lesson: Bootstrapping a classroom culture. In C. Kramsch (Ed), *Language acquisition and language socialization* (pp. 237-65). New York: Continuum.

van Leeuwen, T. (2007). Legitimation in discourse and communication. *Discourse & Communication*, *1*(1), 91–112. doi:10.1177/1750481307071986

van Tassel-Baska, J., Zuo, L., Avery, L. D., & Little, C. A. (2002). A curriculum study of gifted-student learning in the language arts. *Gifted Child Quarterly*, *46*, 30–44.

Vygotsky, L. (1986). *Thought and language*. Cambridge, MA: MIT Press.

Vygotsky, L. (1997). Interaction between learning and development. In M. Gauvain & M. Cole (Eds.), *Mind and society: Readings on the development of children (pp. 79-91)*. New York: W.H. Freeman and Company.

Wager, A. A. (2014). Noticing children's participation: Insights into teacher positionality toward equitable mathematics pedagogy. *Journal for Research in Mathematics Education*, *45*(3), 312–350.

Walker, C. L., & Tedick, D. (2000). The complexity of immersion education: Teachers address the issues. *The Modern Language Journal*, *84*(1), 5–27.

Walpole, S., & McKenna, M. (2007). *Differentiated instruction: Strategies for the primary grades*. New York, NY: The Guilford Press.

Wang, F., & Hannafin, M. J. (2005). Design-based research and technology-enhanced learning environments. *Educational Technology Research & Developm*ent, 53(4), 5–23.

Webb, N. M. (1982). Interaction and learning in small groups. *Review of Educational Research*, 52, 421-445.

Webb, N. M. (2009). The teacher's role in promoting collaborative dialogue in the classroom. *The British Journal of Educational Psychology*, *79*(1), 1–28. doi:10.1348/000709908X380772

Wegner, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Wiese, A. (2004). Bilingualism and biliteracy for all? Unpacking two-way immersion at second grade. *Language and Education*, *18*(1), 69–93.

Wormeli, R. (2007). *Differentiation: From planning to practice*. Portland, ME: Stenhouse Publishers.

Worth, R. (2008). Foreign language resistance: Discourse analysis of online classroom peer interaction. In S. Magnan (Ed.), *Mediating discourse online* (pp. 245-269). New York: John Benjamins.

Wortham, S. (2006). *Learning identity*. New York, NY: Cambridge University Press.

Wortham, S., Mortimer, K., Lee, K., Allard, E., & White, K. D. (2011). Interviews as interactional data. *Language in Society*, *40*(01), 39–50. http://doi.org/10.1017/S0047404510000874

Young, A. I. & Tedick, D. J. (in press). Collaborative dialogue in a two-way Spanish/English immersion classroom. In M. Sato & S. Ballinger (Eds.), *Peer interaction and second language learning: Pedagogical potential and research agenda.* Amsterdam: John Benjamins Publishing Company

Zwiers, J. (2006). Integrating academic language, thinking, and content: Learning scaffolds for non-native speakers in the middle grades. *Journal of English for Academic Purposes*, *5*(4), 317–332. doi:10.1016/j.jeap.2006.08.005

Zwiers, J. (2007). Teacher practices and perspectives for developing academic language. *International Journal of Applied Linguistics*, *17*(1), 93–118.

Zwiers, J. (2008). Content-area variations of academic language. In *Building academic language: Essential practices for content classrooms* (pp. 69–100). San Francisco, CA: Jossey-Bass Teacher.

Appendix A

2013-2014 Cross Sectional Standardized Test Data for Grades 3, 4, & 5: Percent Proficient and Percent FRPL

	Black % Proficient	Black FRPL % Proficient	Black % FRPL	White % Proficient	White FRPL % Proficient	White % FRPL	Hispanic % Proficient	Hispanic FRPL % Proficient	His % FRPL	Hispanic EL % Proficient	His EL FRPL % Proficient	His EL % FRPL
3rd Grade Math												
School	55	60	68	75	--	--*	49	35	65	39	23	54
District	38	36	92	80	52	28	37	31	84	31	29	66
State	46	43	82	81	67	28	50	45	79	38	37	54
3rd Grade Reading												
School	41	33	68	67	--	--	39	30	65	26	14	54
District	31	29	92	76	52	28	29	24	85	22	19	66
State	35	31	83	67	67	27	35	29	79	21	19	54
4th Grade Math												
School	47	42	63	78	--	--	48	31	66	32	25	50
District	34	32	90	74	47	28	35	30	87	28	27	57
State	45	41	82	79	65	27	48	42	79	31	31	46
4th Grade Reading												
School	21	17	63	57	--	--	36	24	66	23	20	50
District	22	19	90	66	37	27	21	16	87	14	13	56
State	30	26	82	64	47	27	30	24	79	11	10	46
5th Grade Math												
School	--	--	--	74	--	--	39	36	80	7	7	37
District	23	20	91	71	41	27	35	30	83	20	19	51
State	33	29	81	69	52	27	39	34	79	20	20	39
5th Grade Reading												
School	--	--	--	71	--	--	58	47	80	29	23	34
District	31	29	91	79	55	27	43	37	83	25	24	51
State	42	37	81	75	60	26	45	39	79	22	21	41

*Immersion School White FRPL % overall is 19%

Appendix B

Three Year Comparison Standardized Test Data, Grades 3, 4, and 5 vs. Only Grade 5 by Race and EL Status

	Math All Grades (3rd/4th/5th)			Reading All Grades (3rd/4th/5th)			Math 5th Grade			Reading 5th Grade		
	2011-2012	2012-2013	2013-2014	2011-2012	2012-2013	2013-2014	2011-2012	2012-2013	2013-2014	2011-2012	2012-2013	2013-2014
Black Stds School	62	50	50	56	33	32	40	50	--	50	36	--
Black Stds District	24	25	24	45	26	25	24	26	23	48	29	31
Black Stds State	33	33	33	53	33	34	32	31	33	57	38	42
White Stds School	89	80	76	96	64	65	71	83	74	100	83	71
White Stds District	68	70	19	83	70	72	65	68	71	84	75	83
White Stds State	68	68	24	82	65	67	70	67	69	85	71	75
Hispanic Stds School	50	52	46	65	32	43	26	41	39	68	30	58
Hisp Stds District	33	31	29	52	29	29	29	32	35	56	28	43
Hispanic Stds State	38	37	38	54	35	36	37	36	39	57	39	45
Hisp/EL Stds/School	40	28	29	53	10	25	6	24	7	53	6	29
Hisp/EL Stds/Dist	26	17	19	41	11	16	23	16	20	43	7	25
Hispanic El Stds State	27	24	24	36	16	16	24	22	20	39	19	22

Appendix C

Principal and Support Teacher Interviews During Phase 1

Interview Number	Participants	Date	Questions
Int.Phase1.1	EL Teacher and Researcher	September 18, 2014	1. This study is looking at how to differentiate for students for students who don't fit the traditional profile of the original Canadian immersion model. What are finding about how EL's adapt to this model, especially Spanish home language students. 2. How do you work with EL's in pullout and in the classroom? 3. What are your specific learning objectives for these students? 4. How do teachers currently differentiate for English learners in the classroom during Math? Reading? Writing? ELA time? 5. What linguistic supports do teachers give students in the classroom?
Int.Phase1.2	Principal and Researcher	October 2, 2014	1. The methodology I am using for this study is called DBR. As part of the study, I need to talk to a number of stakeholders to see what the school is currently doing before designing a few interventions with the classroom teacher that would influence learning. 2. This study is looking at how to differentiate for students in order to both to push and scaffold Spanish proficiency levels for EHL students and to expand and bridge language for SHL students. 3. Ideally, what would teachers be doing in the classroom to push Spanish oral language proficiency for all students? Specifically for the students at the higher and lower ends of the continuum in the classroom? 4. What would teachers do to assist transfer for SHL students to English? How about EHL with lower levels of academic language? 5. How is pull out instruction connected to what is occurring in the classroom? 6. Who do you feel is "making it" at Adams and who isn't? To what do you attribute the "achievement gap"? 7. What do you envision that classroom teachers do in order to assist students who are struggling? 8. How do teachers currently differentiate for their students in different subject areas? Math? Reading? Writing? ELA time? 9. What linguistic supports do teachers give students in the classroom? 10. Can you tell me anything specifically about students in Brian's class? 11. How are you feeling that the Spanish proficiency levels have shifted from first grade this year as compared to last year? Do you feel this is related to the new instructional model in kindergarten? 12. Is there anything else that you would like to tell me?
Int.Phase1.3	Special Education Teacher and Researcher	October 2, 2014	1. The methodology I am using for this study is called DBR. As part of the study, I need to talk to a number of stakeholders to see what the school is currently doing before designing a few interventions with the classroom teacher that would influence learning. 2. This study is looking at how to differentiate for students in order to both to push and scaffold Spanish proficiency levels for EHL students and to expand and bridge language for SHL students. 3. Ideally, what would teachers be doing in the classroom to push Spanish oral language proficiency for all students? Specifically for the students at the higher and lower ends of the continuum in the classroom? 4. What would teachers do to assist transfer for SHL students to English? How about EHL with lower levels of academic language? 5. How is pull out instruction connected to what is occurring in the classroom? 6. Who do you feel is "making it" at Adams and who isn't? To what do you attribute the "achievement gap"? 7. What do you envision that classroom teachers do in order to assist students who are struggling? 8. How do teachers currently differentiate for their students in different subject areas? Math? Reading? Writing? ELA time? 9. What linguistic supports do teachers give students in the classroom? 10. Can you tell me anything specifically about students in Brian's class? 11. Is there anything else that you would like to tell me?

| Int.Phase1.4 | Spanish RtI Teacher and Researcher | October 3, 2014 | 1. The methodology I am using for this study is called DBR. As part of the study, I need to talk to a number of stakeholders to see what the school is currently doing before designing a few interventions with the classroom teacher that would influence learning.
2. This study is looking at how to differentiate for students in order to both to push and scaffold Spanish proficiency levels for EHL students and to expand and bridge language for SHL students.
3. Ideally, what would teachers be doing in the classroom to push Spanish oral language proficiency for all students? Specifically for the students at the higher and lower ends of the continuum in the classroom?
4. What would teachers do to assist transfer for SHL students to English? How about EHL with lower levels of academic language?
5. How is pull out instruction connected to what is occurring in the classroom?
6. Who do you feel is "making it" at Adams and who isn't? To what do you attribute the "achievement gap"?
7. What do you envision that classroom teachers do in order to assist students who are struggling?
8. How do teachers currently differentiate for their students in different subject areas? Math? Reading? Writing? ELA time?
9. What linguistic supports do teachers give students in the classroom?
10. Can you tell me anything specifically about students in Brian's class?
11. Is there anything else that you would like to tell me? |
| Int.Phase1.5 | Curriculum Coordinator and Research | October 7, 2014 | 1. This study is looking at how to differentiate for students in order to both to push and scaffold Spanish proficiency levels for EHL students and to expand and bridge language for SHL students. What is your role in this school in relation to that goal? What are your specific goals in relation to Spanish language proficiency at Adams? Will do more this year, beginning, middle, final reading levels. Work with English and then we need to do that for Spanish.
2. Who do you feel is "making it" at Adams and who isn't? What do you recommend to teachers in order to assist students who are struggling?
3. How do you see teachers working to assist the Spanish language development (literacy and oral proficiency with academic language) for SHL students? How do they work to transfer the literacy skills to English? What do you wish that you saw more of?
4. How do you see teachers working to assist the Spanish language development for EHL students who at a variety Spanish language proficiency levels. How about students who are at a variety of English academic language skill levels? Oral Language (MONDO oral language)
5. How do teachers currently differentiate for their students in different subject areas? Math? Reading? Writing? ELA time?
6. What linguistic supports do teachers give students in the classroom? Technology RAZZ kids, online books
7. Can you tell me anything specifically that you are working on in Brian's class? Spanish and/or English oral language proficiency (listening/speaking)? reading/writing proficiency development (biliteracy)?
8. How are you feeling that the Spanish proficiency levels have shifted from first grade this year as compared to last year? Do you feel this is related to the new instructional model in kindergarten?
9. Is there anything else that you would like to tell me? |

Appendix D

Classroom Teacher Interviews during Phase 1, 2, and 3

Interview Number	Participants	Date	Questions
Int.Phase1.6	Classroom Teacher and Researcher	September 12, 2014	1. As you know this study is looking at how to differentiate for students for students who don't fit the traditional profile of the original Canadian immersion model. How do you currently differentiate for Spanish home language students during Math? Reading? Writing? ELA time? 2. How do you differentiate for English home language students at lower levels of Spanish proficiency? 3. Do you ever differentiate in terms of student interest? student learning readiness? student learning profile? 4. How do you differentiate process? product? content? status?
Int.Phase1.7	Classroom Teacher and Researcher	October 6, 2014	1. In interviewing Beverly Boyson from CAL, she mentioned that it is important to have a clear Spanish language scope and sequence at the school/grade level. Do you have clear language objectives in third grade? 2. In talking to Maia Pang, she mentioned the fact that Working with Words is the main way that she works with ELs, especially on English print concepts that do not transfer from Spanish. You also mentioned WwithW as your source for working with ELA. Do you also work on bridging concepts to increase the transfer from Spanish to English? Or to connect to the academic learning that occurred in Spanish? 3. Can you tell me what you know so far about each student? See list 4. Can you confirm that this is the overall student interaction process that often occurs in your classroom?
Int.Phase1.8	Classroom Teacher and Researcher	October 22, 2014	Open ended discussion regarding potential "improvement on local practice"/ differentiated instruction
Int.Phase2.9	Classroom Teacher and Researcher	November 14, 2014	Open ended discussion to discuss literature and review prepared supports for DI (Iteration #1)
Int.Phase2.10	Classroom Teacher and Researcher	November 25, 2014	Open ended discussion regarding prepared supports for DI, transcripts of student responses, and new supports (Iteration #2)
Int.Phase2.11	Classroom Teacher and Researcher	December 8, 2014	Open ended discussion regarding prepared supports for DI, transcripts of student responses, and new supports (Iteration #3)
Int.Phase3.12	Classroom Teacher and Researcher	December 16, 2014	Semi-structured interview regarding overall perceptions of differentiated instructional supports

Appendix E

Articles Shared with Classroom Teacher

Article	Date	Purpose
Mehan, H. (2008). Engaging the sociological imagination: My journey into design research and public sociology. *Anthropology & Education Quarterly*, *39*(1), 77–91. doi:10.1111/j.1548-1492.2008.00006.x.77	March 28, 2014	Introduce DBR
Mercer, N. (2010). The analysis of classroom talk: methods and methodologies. *The British Journal of Educational Psychology*, *80*(Pt 1), 1–14. doi:10.1348/000709909X479853	November 10, 2014	Share strategies for analyzing classroom talk (to be used in Mr. B's Master's thesis)
Grant, L. (1995). *Developing student awareness of knowledge structures: An exploratory teacher-action study*. University of British Columbia.	November 10, 2014	Example of Action Research Project looking at classroom discourse analysis
Mohan, B., & Beckett, G. (2003). A functional approach to research on content-based language learning: Recasts in causal explanations. *Modern Language Journal*, *87*(3), 421–432.	November 10, 2014	Introducing the concept of focus on function
Gibbons, P. (1998). Classroom talk and the learning of new registers in a second language. *Language and Education*, *12*(2), 99–118. doi:10.1080/09500789808666742	November 11, 2014	Introducing mode continuum and focus on function (SFL) tied to scaffolding
Zwiers, J. (2006). Integrating academic language, thinking, and content: Learning scaffolds for non-native speakers in the middle grades. *Journal of English for Academic Purposes*, *5*, 317–332. doi:10.1016/j.jeap.2006.08.005	November 14, 2014	Examples of scaffolds to support oral language production
Wiese, A. M. (2004). Bilingualism and biliteracy for all? Unpacking two-way immersion at second grade. *Language and Education*, *18*(1), 69–93.	December 16, 2014	Article looking at racial inequities in TWI classrooms
Anberg-Espinosa, M. (2008). *Experiences and perspectives of African American students and their parents in a two-way Spanish immersion program*. (Unpublished doctoral dissertation.) The University of San Francisco, CA.	December 16, 2014	Article about African American student participation in TWI programs

Appendix F

Classroom Demographics

Name	Gender	Race	Emergent Bilingual	Range of SOPA Assessment Levels	Spanish Reading **	English Reading**	WIDA Level	Math Level
Xochitl	F	His	Group 2	Advanced Mid - Advanced High	5	2 (EL)*	3	3
Katrina (Focal Student)	F	His	Group 2	Advanced Mid - Advanced High	3	2 (EL)	2	3
Diego	M	His	Group 3	Intermediate Mid - Intermediate High	3	5	--	3
Paty	F	His	Group 2	Intermediate High - Advanced Low	1 (SS)	1 (EL)	2.5	3
Kevin	M	Wh	L2	Intermediate High - Advanced Low	4	4	--	3
Nancy	F	Wh	L2	Intermediate Mid - Advanced Low	5	5	--	4
Jessica (Focal Student)	F	Bl/Wh	L2	Intermediate Mid - Advanced High	5	4	--	3
Cory	M	Wh	L2	Intermediate Mid - Intermediate High	5	5	--	4
Matthew	M	Bl	L2	Intermediate Mid - Intermediate High	3	3	--	3
Timothy	M	His/Wh	Group 3	Intermediate Mid - Intermediate High	2	3	--	3
Joel (Focal Student)	M	His	Group 3	Intermediate Mid - Intermediate High	3	1 (EL)	2.8	3
Amanda	F	Wh	L2	Intermediate Mid - Intermediate High	3	4	--	3
Daphnie	F	Wh	L2	Intermediate Mid - Intermediate High	4	5	--	4
Sammy	M	Bl	L2	Intermediate Mid - Intermediate High	4	4	--	3
Sara	F	His/Wh	Group 3	Intermediate Mid - Advanced Low	2	3	--	3
Abdul (Focal Student)	M	Bl	L2	Intermediate Low - Intermediate High	5	5	--	3
Anali	F	Bl	L2	Intermediate Low - Intermediate High	2 (SS)	2	--	3
Jackie	F	Bl	L2	Intermediate Low - Intermediate Mid	2 (SS)	2	--	3
Jason	M	Wh	L2	Intermediate Low - Intermediate High	5	5	--	4
John	M	Bl	L2	Intermediate Low - Intermediate High	4	3	--	4
Susan (Focal Student)	F	Wh	L2	Intermediate Low - Intermediate High	3	4	--	3
Eric	M	His/Wh	L2	Novice High - Intermediate Mid	2	3	--	3
Annika	F	Bl	L2	Novice High - Intermediate Mid	1 (SS)	1	--	3
Walker	M	His	L2	Novice Mid - Intermediate Low	1	1 (SpEd)	--	3

* EL=Receiving English learner services, SS=Receiving Spanish support services, SpEd=Receiving Special Education services.
** The reading group levels are comparative based on five reading groups with "5" representing the highest reading level and "1" the lowest

Appendix G

Language Samples from Differentiation Strategies

	Math Games	Non-fiction Paired Reading	Fiction Paired Reading
Differentiated Target Sentences	Excelente. Maravilloso. Estupendo. Felicidades. Súper. Fabuloso. Fantástico. Perfecto. Fenomenal. Formidable. Sensacional. Chévere. Qué padre. Qué lástima. Qué bien. Qué bueno. Lo siento. Ni modo. No pasa nada. Qué chévere. Qué triste. Eres un buen jugador. Ten las cartas. Ten los dados. Toma la baraja. Pon la baraja allí, por favor. Pon las unidades allí, por favor. Baraja las cartas, por favor. ¡Sacaste una buena carta! Sacaste un diez! Mezcla las cartas, por favor. Lo hiciste muy bien. ¡Me encantó como jugaste! Reparte las cartas, por favor.	Fantástico. Fenomenal. Perfecto. Sensacional. Estupendo. Formidable. Maravilloso. Fabuloso. Gracias. Mil gracias. Qué amable. Lo hiciste muy bien. Me encantó como leíste. Te lo agradezco. ¿Qué crees que diga esta página? ¿Qué información nueva vendrá en esta página? ¿Qué supones que viene en esta parte de la lectura? ¿Qué decía esta página? ¿Qué aprendimos en esta página? ¿Qué se pudo aprender en esta página?	Fantástico. Fenomenal. Perfecto. Sensacional. Estupendo. Formidable. Lo hiciste muy bien. Me encantó como leíste. Maravilloso. Fabuloso. Claro. Con mucho gusto. Ahorita voy. Ahí voy. Sí, amigo. Gracias. Mil gracias. Qué amable. Te lo agradezco. Me da gusto leer para Ud. Adelante, porfis. Te toca leer. A leer, por favor. Léelo, por favor. ¿Puedes leer ahora? ¿Podrías leer, Sr./Srta.? ¿Conexiones? ¿Qué conexión tienes con la lectura? ¿Cuál sería una conexión que tienes con la lectura? ¿Qué te recuerda la lectura?
Differentiated Sentence Stems	Saqué un total de _____. Mi compañero sacó un total de _____. Juntos teníamos un total de _____.	Va a hablar sobre... Creo que se va a tratar de... Es probable que hablen de... Es posible que digan... Yo supongo que... Aprendimos que .... Descubrimos que... Entendimos que... Averiguamos que... Detectamos que... La lectura decía que...	Una vez... Tengo una conexión con la lectura porque... Una conexión que tengo con la lectura es... La lectura me recuerda una vez que...
Pre-Modified Partially	Distribute materials Encourage partner	Predict - Read - Summarize	Predict - Read - Connect

Scripted Interaction			
Differentiated Vanishing Cloze	Saqué un total de _____. Mi compañero sacó un total de _____. Juntos teníamos un total de _____.	Al final, yo _____ unas conexiones incluyendo que: En fin, yo _____ unas conexiones incluyendo que: Para terminar, yo _____ unas conexiones incluyendo:	Al final, mi compañero/a _____ unas conexiones incluyendo En fin, mi compañero/a _____unas conexiones incluyendo Para terminar, mi compañero/a _____ unas conexiones incluyendo
Word Bank Words	Numbers from 0 to 100 (in Spanish)	dije, dijo, dijimos reporté, reportó, reportamos explique, explicó, explicamos	reporté, reportó, reportamos indiqué, indicó, indicamos añadí, añadió, añadimos

Appendix H

Human Subjects Approval for the University of Minnesota

September 4, 2014

The IRB: Human Subjects Committee determined that the referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #1 INSTRUCTIONAL STRATEGIES IN EDUCATIONAL SETTINGS.

Study Number: 1408E53164

Principal Investigator: Amy Young

Title(s): Linguistic Diversity, Student Interaction and Differentiated Scaffolding: Student Oral Proficiency in Grade Three Spanish Immersion

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This e-mail confirmation is your official University of Minnesota HRPP notification of exemption from full committee review. You will not receive a hard copy or letter. This secure electronic notification between password protected authentications has been deemed by the University of Minnesota to constitute a legal signature.

The study number above is assigned to your research. That number and the title of your study must be used in all communication with the IRB office.

For research in schools: Any changes to this research must be approved by the IRB and school district involved before initiation.

If you requested a waiver of consent or documentation of consent and you received this email, approval for the waiver has been granted.

This exemption is valid for five years from the date of this correspondence and will be filed inactive at that time. You will receive a notification prior to inactivation. If this research will extend beyond five years, you must submit a new application to the IRB before the study's expiration date.

Upon receipt of this email, you may begin your research. If you have questions, please call the IRB office at (612) 626-5654.

You may go to the View Completed section of eResearch Central at http://eresearch.umn.edu/ to view further details on your study.

The IRB wishes you success with this research.

CARTA DE CONSENTIMIENTO PARA MENOR DE EDAD
Diversidad lingüística, interacción y apoyo académico diferenciado: Fluidez oral en español de alumnos de tercer año de una primaria bilingüe, IRB #1408E53164

¡Hola!

Vamos a realizar una investigación (un estudio) en tu clase que tiene que ver con el lenguaje que usas en la escuela. Tu maestro, Mr. Rice, trabajará conmigo para organizar diferetes materiales para desarrollar tus habilidades en español.

Si aceptas estar en nuestro estudio, nos permitirás:
1) Evaluar tu fluidez en español. No será un examen escrito sino oral. Yo te preguntaré sobre algunas temas sencillas y responderás en español. Durará la evaluación entre 20 y 30 minutos. Grabaré (por video) la evaluación para poder escucharla/mirarla después.
2) entrevistarte para ver qué opinas sobre las actividades de clase. Se puede hacer la entrevista en español ó inglés. Grabaré (sopor lo audio) la entrevista para poder escucharla después.
3) grabar tu voz cuando observamos en la clase. Me interesa escuchar y grabar el español que usas cuando hablas con tus compañeros de clase y observar cómo respondes a las actividades que tu maestro planea para la clase.

Puedes hacer preguntas las veces que quieras en cualquier momento del estudio. Además, si decides que no quieres continuar con el estudio, puedes descontinuar cuando quieras. Nadie va a enojarse contigo si decides que no quieres participar en el estudio o si decides que no quieres continuar en el estudio.

Si firmas este papel quiere decir que lo leíste, o alguien te lo leyó, y que quieres estar en el estudio. Si no quieres estar en el estudio, no lo firmes. Recuerda que tú decides y nadie se puede enojar contigo si no firmas el papel o si cambias de idea y te quieres retirar del estudio después.

Gracias por haber leído este papel y por considerar esta invitación.

_____   _____
Firma del participante del estudio   Fecha

_____   _____
Firma de la investigadora   Fecha

STUDENT ASSENT FORM
Linguistic Diversity, Student Interaction and Differentiated Scaffolding: Student Oral Proficiency in Grade Three Spanish Immersion, IRB #1408E53164

Hi!

We're planning on doing a study in your classroom that is about how you use Spanish. Your teacher, Mr. Rice, is going to work with me to design different classroom materials that will help you to develop your Spanish language during your regular classroom lessons.

If you agree to be in this study, I will ask you to:
1. Take a Spanish language test with a classmate – this won't be a written test. I will ask you questions and ask you to respond in Spanish. It will take around 30 minutes. And I will videotape the test so I can listen to/watch it later. I won't keep the videos. After I write down everything you say, I'll erase the videos. So I'll ask that you take the test early in the school year and again in December, before the winter holiday.
2. Have an interview with me to talk about what you think about the different classroom materials that you tried out. We can talk in English or Spanish – your choice! I'll tape record the interview so I can listen to it later.
3. Wear a microphone so that I can tape record what you say when you are working in small groups in Spanish in your classroom. I am interested in listening to the Spanish that you use when you talk with your classmates and seeing how you respond to activities that Mr. Rice has planned for your class. I'll record what you say so that I can listen to it later.

At any time during the study you can ask any questions. And, if you decide you don't want to be in the study even after it started, you can stop at any time. No one is going to get mad at you if you decide you don't want to be in the study or if you decide you want to stop being in the study after it starts.

If you sign this paper, it means that you read it or that someone read it to you, and that you want to be in the study. If you don't want to be in the study, don't sign the paper. Remember that you are the one who decides if you want to be in the study and no one will be mad at you if you don't sign the paper or if you change your mind later and decide you don't want to be in the study after it has started.

Thank you for reading and thinking about this.

_____   _____
Signature of the study participant   Date

_____   _____
Signature of the researcher   Date

HOJA DE CONSENTIMIENTO PADRES DE FAMILIA
Diversidad lingüística, interacción y apoyo académico diferenciado: Fluidez oral en español de alumnos de tercer año de una primaria bilingüe, IRB #1408E53164

Estimados padres de familia/tutores:

Mi nombre es Amy Young y yo soy una estudiante de posgrado en la Universidad de Minnesota. Le escribo para informarle de un estudio de investigación que me gustaría llevar a cabo en el salón de clase de su hijo.

Se invita a su hijo a participar en un estudio de investigación que explora cómo el lenguaje oral en español de los alumnos cambie en respuesta a la instrucción diferenciada. Su hijo fue seleccionado como posible participante por el hecho de que él o ella está en el salón del tercer grado del Sr. Rice. Le pedimos que lea esta hoja de consentimiento y haga cualquier pregunta antes de aceptar participar en el estudio.

Este estudio está siendo realizado por: Amy Young, candidato doctoral en la escuela de Educación de la Universidad de Minnesota, bajo la supervisión de sus asesores, la Dra. Diane Tedick, Ph.D., Universidad de Minnesota y la Dra. Tara Fortuna, Ph.D., Universidad de Minnesota.

Antecedentes:

El propósito de este estudio es explorar cómo el lenguaje oral de los alumnos cambie en respuesta a la instrucción diferenciada. En particular, el estudio se centra en cómo los estudiantes responden a la instrucción que se adapte a su propio idioma (Inglés o Español) y su nivel de fluidez lingüística. Estoy interesada en el estudio de las estrategias de diferenciación utilizadas en esta aula, así como la forma en que los alumnos responden a las nuevas estrategias desarrolladas específicamente para el estudio. Dominio del lenguaje oral de los estudiantes es muy importante porque sabemos que las habilidades orales se alinean con la alfabetización y las habilidades académicas. Así que es importante que aprendamos qué tipos de estrategias de enseñanza puedan ayudar a los estudiantes a desarrollar una fuerte fluidez oral en español.

Procedimientos:

Si Ud. está de acuerdo en permitir que su hijo participe en este estudio, se trataría de lo siguiente:

1. Evaluaré el dominio del idioma español oral de su hijo al inicio del estudio. Esto debe tomar entre 20 y 30 minutos por pareja. La evaluación es como una entrevista oral dada a parejas de estudiantes, y será grabada por vídeo y audio para poder escucharla/verla más tarde y transcribirla. Los pares de estudiantes serán retirados del salón de clase a una sala distinta para participar en esta evaluación. Tenga en cuenta que la grabación en vídeo es importante porque voy a tener que determinar qué niño está hablando, y es muy difícil si no

imposible hacer esto con sólo grabaciones de audio. Las cintas de vídeo solo se utilizarán para este propósito. Las grabaciones serán destruidas una vez que hayan sido transcritas.

2. Observaré el salón de clases durante una hora al día durante 12 semanas.

3. Grabaré el uso del lenguaje oral durante el trabajo en grupos pequeños durante ocho sesiones de 30 minutos. Estas conversaciones serán grabadas en audio y transcritas. Su hijo será grabado en grupos pequeños una vez por semana para un total de ocho semanas.

4. Evaluaré el dominio de la lengua oral de 8 estudiantes (4 pares) de nuevo al final del estudio. Esto debe tomar entre 20 a 30 minutos por cada par. Una vez más, estas evaluaciones serán grabadas por vídeo y audio por las razones explicadas anteriormente.

5. Entrevistaré a 4 estudiantes al final del estudio. Esta entrevista debería tomar unos 15 minutos.

Riesgos y Beneficios de Estar en el Estudio:

Este estudio plantea un riesgo mínimo y mínimos beneficios directos para su hijo. El estudio se trata simplemente de grabar el lenguaje oral en español de su hijo, lo que produce durante las evaluaciones y el tiempo normal de clase. Si usted permite y si su hijo decide participar, él o ella podrá retirarse del estudio en cualquier momento.

Compensación:

No hay compensación por participar en este estudio.

Confidencialidad:

La información recolectada en este estudio será confidencial. Cualquier tipo de informe que se publique no incluirá ninguna información que permitiría identificar a usted o a su hijo. Cada estudiante será asignado un número y seudónimo. Expedientes de investigación se almacenará de forma segura y sólo los investigadores tendrán acceso a los registros.

Naturaleza Voluntaria del Estudio:

La participación en este estudio es voluntaria. Su decisión de permitir o no que su hijo participe no afectará sus relaciones actuales ni futuras con la Universidad de Minnesota, ni con el de las Escuelas Públicas de Saint Paul. Si usted decide permitir que su hijo participe, usted es libre de retirarse en cualquier momento sin afectar a dichas relaciones.

Contactos y Preguntas:

El investigador que realiza este estudio es: Amy Young. Le animamos a ponerse en contacto conmigo en el 715-379-2895 (celular) ó youn0629@umn.edu con cualquier pregunta que tenga ahora o más tarde. También invitamos a contactar a sus asesores con

cualquier pregunta: Diane Tedick (612-625-1081; djtedick@umn.edu) y Tara Fortuna (612-626-8826; fortu001@umn.edu).

Si usted tiene alguna pregunta o duda sobre este estudio y quiere hablar con alguien que no sea el investigador (s) o sus asesores, le animamos a ponerse en contacto con el "abogado" de los sujetos de la investigación al D528 Mayo, 420 Delaware St. Sudeste, Minneapolis , Minnesota 55455; (612) 625-1650.

Se le dará una copia de esta información para mantener en sus archivos.

Declaración de Consentimiento:

He leído la información anterior. Doy mi consentimiento para que mi hijo participe en el estudio.

Firma: _____ Fecha: _____

Firma del Investigador: _____ Fecha: _____

PARENT CONSENT FORM
Linguistic Diversity, Student Interaction and Differentiated Scaffolding: Student Oral Proficiency in Grade Three Spanish Immersion, IRB #1408E53164

Dear Parents/Guardians,

My name is Amy Young and I am a graduate student at the University of Minnesota. I am writing to inform you of a research study that I would like to conduct in your child's third grade classroom at Adams Spanish Immersion School.

Your child is invited to be in a research study that explores how students' Spanish oral language proficiency changes in response to differentiated instruction. Your child was selected as a possible participant because he or she is in Mr. Rice's third grade Spanish immersion classroom. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Amy Young, doctoral candidate in Second Languages and Cultures Education at the University of Minnesota, under the guidance of her advisers, Dr. Diane Tedick, Ph.D., University of Minnesota and Dr. Tara Fortune, Ph.D., University of Minnesota.

Background Information:

The purpose of this twelve-week study is to explore how students' Spanish oral language production changes in response to differentiated instruction. Particularly, the study looks at how students respond to instruction that is tailored to their home language (English or Spanish) and Spanish language proficiency level. We are interested in looking at current strategies for differentiation used in this classroom as well as how students respond to new strategies developed specifically for the study. Students' oral language proficiency is very important because we know that strong oral proficiency means that students will also have stronger literacy and academic skills. So it's important that we learn what kinds of teaching strategies can help students to develop strong oral proficiency in Spanish.

Procedures:

If you agree to allow your child to participate in this study, this would involve the following:
  (1) I will assess your child's Spanish oral language proficiency at the beginning of the 12-week study. This assessment should take approximately 30 minutes per pair. The assessment is like an oral interview given to pairs of students, and it will be video- and audio-recorded so that I can listen to/watch it later and transcribe it. Pairs of students will be taken out of the classroom to a separate room to participate in this assessment. Note that videotaping is important because I must be able to determine which child is speaking, and it is very challenging if not impossible to do this with audio-recordings only. The videotapes will only be used for this purpose. They will be destroyed once they have been transcribed.
  (2) I will observe the classroom for an hour a day for 12 weeks.

(3) I will record student Spanish oral language use during small group work for eight 30-minute sessions. These conversations will be audio-recorded and transcribed. Your child will be recorded in small group work once per week for a total of eight weeks.

(4) I will assess up to 8 students' Spanish oral language proficiency (4 pairs) again at the end of the 12-week study as well. This should take approximately 30 minutes per pair. Again, these assessments will be video- and audio-recorded for reasons explained above.

(5) I will interview 4 students at the end of the study. This interview should take about 15 minutes.

Risks and Benefits of being in the Study

This study poses minimal risk and no direct benefits to your child. The study entails simply recording the Spanish oral language that your child produces during assessments and during regular class time. If you allow and if your child chooses to participate, s/he may withdraw from the study at any time.

Compensation:

There is no compensation for participation in this study.

Confidentiality:

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify you or your child. Students will be assigned numbers and pseudonyms. Research records will be stored securely and only the researcher will have access to the records. It is possible that my advisers will see some of the transcribed data but it will have been anonymized with pseudonyms.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to allow your child to participate will not affect your current or future relations with the University of Minnesota or with the Saint Paul Public Schools. If you decide to allow your child to participate, you are free to withdraw that permission at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is: Amy Young. **You are encouraged** to contact her at 715-379-2895 (Amy cell) or youn0629@umn.edu with any questions you have now or later. You are also welcome to contact her advisers with any questions: Diane Tedick (612-625-1081; djtedick@umn.edu) and Tara Fortune (612-626-8826; fortu001@umn.edu).

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s) or her advisers, **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I consent to allow my child to participate in the study.

Signature: _____ Date: _____

Signature of Researcher: _____ Date: _____

Estimados Padres/Tutores -

¡Saludos! Mi nombre es Amy Young, y soy una estudiante de posgrado en la Universidad de Minnesota. Les escribo para informarles de un estudio de investigación que me gustaría llevar a cabo en el aula de inmersión de tercer grado de su hijo/a en la escuela Adams. Antes de seguir leyendo, por favor tenga en cuenta que está perfectamente bien si usted prefiere que su hijo no se incluya en este estudio. Usted simplemente necesita devolver el paquete que recibió con esta carta y hoja de consentimiento sin su firma. Por favor, el formulario de consentimiento a fondo antes de tomar una decisión.

Su hijo/a fue seleccionado como posible participante en este estudio porque él o ella es un(a) estudiante en el tercer grado en el salón del maestro Brian Rice en la escuela Adams. El Sr. Rice ha aceptado participar en el estudio, que se tratará de diseñar estrategias diferenciadas para mejorar el dominio del idioma oral en español de los estudiantes. En el aula de inmersión en español hay una amplia gama de niveles de competencia en español. Yo estoy interesada en ver cómo los diferentes tipos de actividades ayuden a los estudiantes a mejorar su dominio del español. Dominio de la lengua oral de los estudiantes es importante, ya que les ayuda a mejorar su aprendizaje y habilidades académicas.

El propósito de este estudio es explorar cómo los estudiantes del 3er grado responden a estrategias de enseñanza diferenciadas diseñadas para mejorar el desarrollo del lenguaje español. Diferenciación significa que a diferentes grupos de estudiantes se les da tareas ajustadas para completar - las tareas corresponden a su competencia en español. Todos los estudiantes en la clase con la aprobación para participar en el estudio tendrán su competencia oral evaluado en español al inicio del estudio. Además, durante ocho semanas grabaré (por audio) interacciones de grupo pequeño de los estudiantes durante la instrucción en español. Tengo la intención de observar durante 12 semanas, 8 de las cuales incluirán las grabaciones de audio de las pequeñas interacciones de grupo. El objetivo es ver como cambia el español oral de los estudiantes en respuesta a la instrucción diferenciada. Se entrevistarán a algunos estudiantes al final del estudio.

Este estudio no supone ningún riesgo para su hijo. Sólo se llevará a cabo una evaluación de dominio oral del idioma español y se grabará las interacciones de los alumnos durante las actividades normales de aula. El estudio no presenta beneficios directos a su hijo. Tenga en cuenta que si decide no permitir que su hijo/a participe, no voy a transcribir las participaciones de él o ella. Sin embargo, su hijo/a estará involucrado/a en las actividades normales de clase con los estudiantes participantes. Les pido que por favor lea el formulario de consentimiento adjunto cuidadosamente y haga cualquier pregunta que usted pueda tener antes de tomar su decisión.

Muchas gracias por su consideración. Le agradecería si usted podría pedir a su hijo/a que regrese el paquete (con el formulario firmado o sin firmar) al maestro tan pronto como sea posible.

Atentamente, Amy Young

Dear Parents/Guardians –

Hello! My name is Amy Young, and I am a graduate student at the University of Minnesota. I am writing to inform you of a research study that I would like to conduct in your child's third grade immersion classroom at Adams Spanish Immersion School.

Before you read further, please note that if you prefer that your child not be included in this study, that is perfectly fine. You simply need to have your child return the packet you received with this letter and consent form <u>without</u> your signature. Please read this letter and the consent form thoroughly before making a decision.

Your child was selected as a possible participant in this study because s/he is a student in Mr. Brian Rice's 3rd grade immersion classroom at Adams Spanish Immersion School. Mr. Rice has agreed to participate in the study, which will look at strategies for differentiating instruction based on students' Spanish oral language proficiency. In the Spanish immersion classroom there is a wide range of Spanish proficiency levels, and I'm interested in seeing how different types of activities will help students to improve their Spanish language proficiency. Improving students' oral language proficiency is important because it also helps them improve their literacy and academic skills.

The purpose of this study is to explore how 3rd grade dual immersion students respond to differentiated instructional strategies designed to enhance their Spanish language development in the context of content instruction. Differentiation means that different groups of student are given slightly different tasks to complete – tasks that correspond to their proficiency in Spanish. All students in the class with approval to participate in the study will have their Spanish oral proficiency assessed at the beginning of the study. In addition, for eight weeks I plan to audio-record small group interactions of students during Spanish instructional time. I plan to observe for 12 weeks, 8 of which will include audio recordings of small group interactions. The goal is to see how particular students' Spanish oral language proficiency changes in response to differentiated instruction. Some students will also be interviewed at the end of the study.

This study poses no risk to your child. I will only be conducting a Spanish oral language proficiency assessment and recording the language the students use during normal classroom activities. And the study presents no direct benefits to your child. Note that if you decide not to allow your child to participate, I will not transcribe any language that s/he produces, but s/he will be involved in normal class activities with participating students. I ask that you please read the enclosed consent form carefully and ask any questions you may have before making your decision.

Thank you very much for your consideration. I would appreciate it if you could have your child return the packet (with the form signed or unsigned) to the teacher as soon as possible.

Sincerely,
Amy Young

Appendix J

Schedule of Fifteen-Week Data Collection Events for DBR Phase 1, 2, and 3

	Schedule	Study Activity	Days and times
		PHASE 1: INFORMED EXPLORATION OF LOCAL CONTEXT	
PHASE 1 Initial Overview	Week 1 Sep. 8 - Sep. 12	Preliminary interview with classroom teacher Observations at the school	45 minute initial interview with classroom teacher Full-day observations at school on Tues., Sep. 9 & Thur., Sep. 11
	Week 2 Sep. 15 - Sep. 19	EL teacher interview Explain and pass out student assent and parent consent forms Collect assent and consent forms (24 forms out of 27 were collected) Observations at the school	30 minute interview on Thur., Sep. 18 Forms explained for 10 minutes during morning meeting Forms collected throughout the week Full-day observations at school on Mon., Sep. 15, Tues., Sep. 16 & Thur., Sep. 18
	Week 3 Sep. 22 - Sep. 26	Student SOPA assessment (24 students)	Assessments on Tues., Sep. 23, Wed., Sep. 24, & Thur., Sep. 25
	Week 4 Sep. 29 - Oct. 3	Interviews with principal, SpEd teacher and SS teacher Class observation (entire class) during small group work in Spanish	30 minute interview with principal/SpEd teacher on Thur., Oct. 2, with SS teacher Fri., Oct. 3 Observations made during Writing, Math & Reading classes on Tues., Sep. 30, Wed., Oct. 1, and Thur., Oct. 2
PHASE 1 Focal Students Identified	Week 5 Oct. 6 - Oct. 10	Second classroom teacher interview Class observation (entire class) during small group work in Spanish Class observation (focal students) during small group work in Spanish SOPA Assessments sent to Dr. Boyson for evaluation Curriculum coordinator interview	One hour interview on Mon., Oct. 6 Observations in Writing, Math & Reading on Mon., Oct. 6, & Tues., Oct. 7, Focal student observations/ recordings on Thur., Oct. 9 & Fri., Oct. 10 Videos (already assessed preliminarily) sent on Mon., Oct. 6 30 minute interview Tues., Oct. 7
	Week 6 Oct. 13 - 17	Class observations during small group work in Spanish (focal students recorded)	Focal student observations/recordings in Math & Reading on Mon., Oct. 13 & Tues., Oct. 14
	Week 7 Oct. 20 - Oct. 24	Class observations during small group work in Spanish (focal students recorded) Third classroom teacher interview	Focal student observations/recordings in Math & Reading on Wed., Oct. 22, Thur. Oct. 23, & Fri., Oct. 24 One hour interview Wed., Oct. 22
	Week 8 Oct. 27 - Oct. 31	Class observations during small group work in Spanish (focal students recorded)	Focal student observations/recordings in Math & Reading on Mon., Oct. 27, Tue., Oct. 28, Wed., Oct. 29, & Thur. Oct. 30
	Week 9 Nov. 3 -	Class observations during small group work in Spanish (focal students	Focal student observations/recordings in Math &

	Nov. 7	recorded)	Reading on Tue., Nov. 4, Wed., Nov. 5, Thur. Nov. 6, & Fri. Nov. 7

<div align="center">PHASE 2: ENACTMENT OF IMPROVEMENT ON LOCAL PRACTICE</div>

PHASE 2 Iteration 1 Math	Week 10 Nov. 10 - Nov. 14	Focal student interactions recorded during language-focused DI: Math Fourth classroom teacher interview	Focal students recorded Fri., Nov. 14 One hour interview Fri., Nov. 14
	Week 11 Nov. 17 - Nov. 21	Focal student interactions recorded during language-focused DI: Math	Focal students recorded on Mon., Nov. 17, Tue., Nov. 18, Wed., Nov. 19, & Thur., Nov. 20
	Week 12 Nov. 24 - Nov. 26	Focal student interactions recorded during language-focused DI: Math Fifth classroom teacher interview	Focal students recorded on Mon., Nov. 24, Tue., Nov. 25, & Wed., Nov. 26 One hour interview on Tue., Nov. 25
Iteration 2 Reading	Week 13 Dec. 1 - Dec. 5	Focal student interactions recorded during language-focused DI: Reading	Focal students recorded on Tue., Dec. 2, Wed., Dec. 3, Thur., Dec. 4, & Fri., Dec. 5
	Week 14 Dec. 8 - Dec. 11	Focal student interactions recorded during language-focused DI: Reading Sixth classroom teacher interview	Focal students recorded on Mon., Dec. 8, Tue., Dec. 9, Wed., Dec. 10, & Thur., Dec. 11 One hour interview on Mon., Dec. 8

<div align="center">PHASE 3: EVALUATION</div>

PHASE 3	Week 15 Dec. 14 - Dec. 18	SOPA assessment for five focal students and their partners Focal student interviews Seventh classroom teacher interview	30 minute assessment per pair on Tue., Dec. 16 & Thur., Dec. 18 15 minute student interviews on Tue., Dec. 16 & Thur., Dec. 18 One hour interview on Tue., Dec. 16

Appendix K

Focal Student SOPA Assessment Data

Name	Oral Fluency (OF)	Grammar (GR)	Vocabulary (VO)	Listening Comp. (LC)	Range of SOPA Language Levels
Katrina (Focal Student)	8	8	8	9	Advanced Mid - Advanced High
Xochitl	8	8	8	9	Advanced Mid - Advanced High
Diego	7	6	6	7	Intermediate Mid - Intermediate High
Paty	6	7	6	7	Intermediate High - Advanced Low
Kevin	6	6	6	7	Intermediate High - Advanced Low
Nancy	6	6	5	7	Intermediate Mid - Advanced Low
Jessica (Focal Student)	6	5	5	7	Intermediate Mid - Advanced High
Cory	6	5	5	6	Intermediate Mid - Intermediate High
Matthew	6	5	5	6	Intermediate Mid - Intermediate High
Timothy	6	5	5	6	Intermediate Mid - Intermediate High
Amanda	5	5	5	6	Intermediate Mid - Intermediate High
Daphnie	5	5	5	6	Intermediate Mid - Intermediate High
Joel (Focal Student)	5	5	5	6	Intermediate Mid - Intermediate High
Sammy	5	5	5	6	Intermediate Mid - Intermediate High
Sara	5	5	5	7	Intermediate Mid - Advanced Low
Abdul (Focal Student)	5	5	4	6	Intermediate Low - Intermediate High
Anali	5	4	5	6	Intermediate Low - Intermediate High
Jackie	5	4	4	5	Intermediate Low - Intermediate Mid
Jason	4	4	4	6	Intermediate Low - Intermediate High
John	4	4	4	6	Intermediate Low - Intermediate High
Susan (Focal Student)	4	4	4	6	Intermediate Low - Intermediate High
Eric	4	3	3	5	Novice High - Intermediate Mid
Annika	3	3	3	5	Novice High - Intermediate Mid
Walker	2	2	2	4	Novice Mid - Intermediate Low

Appendix L

Spanish SALT Transcription Conventions (Adapted from Miller, et al., 2011)

Format	Each entry begins with one of the following symbols. If an entry is longer than one line, continue it on the next line.
$	Identifies the speaker in the transcript; always the first line of the transcript. Example, $ Child, Examiner
C	Child utterance. The actual character used depends on the $ speaker line.
E	Examiner utterance. The actual character used depends on the $ speaker line.
+	Typically used for identifying information such as name, age, and context. Example of current age: +CA: SHL
-	Time marker. Example of two-minute marker: -2.00
[	Simultaneous talk by two speakers, with one utterance represented on top of the other and moment of overlap marked by left brackets
:	Pause between utterances of different speakers. Example of five-second pause. : :05
;	Pause between utterances of same speaker. Example of a three-second pause; :03
=	Comment line. This information is not analyzed in any way, but is used for transcriber comments.
.	End of utterance punctuation that connotes a statement.
!	End of utterance punctuation that connotes surprise.
?	End of utterance punctuation that connotes a question.
~	End of utterance punctuation that connotes an intonation prompt.
^	End of utterance punctuation that connotes an interruption.
>	End of utterance punctuation that connotes an abandoned utterance.
{}	Comments within an utterance (verbal and nonverbal).
X	Unintelligible segments.
word+word	Bound pronominal clitics. Examples: gritándo+le, deja+me+lo, dá+me+lo
()	Mazes. Filled pauses, false starts, repetitions, and reformulations.
< >	Overlapping speech.
" "	Linked words (titles, compound words, proper names)
|	Root identification of inflected word forms and diminutives. Example: Había|haber una vez un niño que tenía|tener una ranita|rana.
[X]	Reflective pronouns.

[CS]	Code switched words. Code-switched clauses are included in the SI if a majority of the utterance is in Spanish.
[WO]	Non-standard word order.
[I]	Vocabulary provided by the assessor.
[EW:word]	Word error.
[EO:word]	Overgeneralization error.
[EW]	Extraneous words.
[EU]	Used to make utterance level errors.
[FP]	Used to mark non-standard filled pause words.
[SI-#]	Subordination index calculation. [SI-X]=no subordination.
[SI-X]	Utterances that are incomplete, unintelligible, or nonverbal are excluded from the SI analysis set or composite score. Elliptical responses to questions and parenthetical remarks are also excluded.
[CI-#]	Coordination count of utterances are connected logically with a coordinating conjunction (and, but, or, so, for, yet, nor).
*	Omitted copula (main verb), article, subordinating conjunction or direct object.
inf.	Infinitives are not counted as separate clauses.
word_word	Connects repetitions to avoid an inflated count.
[PRES]	Indicates use of a present tense verb form.
[PAST]	Indicates use of a past tense verb form.
[FUT]	Indicates use of a future verb form.
[COND]	Indicates use of a conditional verb form.
[SUBJ]	Indicates use of a subjunctive verb form.
[INF]	Indicates use of an infinitive verb form.
[COM]	Indicates use of a command verb form.
[PART]	Past participle form of the verb.
[PROG]	Progressive form of verb (gerund).
[PERF]	Perfect form of verb.
[ALT]	Indicates use of an alternative word choice to avoid specificity.
%	Sound effects (e.g., woof, grrr).
[UD]	Use of formal register.

Appendix M

Transcription System for Transcribing Recordings (Adapted from Wortham, 2006)

-	Abrupt breaks or stops (if several, stammering)
?	Rising intonation
.	Falling intonation
___	(underline) stress
(1.0)	Silences, timed to nearest second
[	Simultaneous talk by two speakers, with one utterance represented on top of the other and moment of overlap marked by left brackets
=	Interruption or next utterance following immediately, or continuous talk represented on separate lines because of need to represent overlapping comment or intervening line
[…]	Transcriber comment (my change)
:	Elongated vowel
°…°	Segment quieter than surrounding talk
,	Pause or breath without marked intonation
(hhh)	Laughter breaking into words while speaking