LANGUAGE CHOICE AND CODE-SWITCHING AMONG SEQUENTIAL AND SIMULTANEOUS BILINGUAL CHILDREN: AN ANALYSIS OF GRAMMATICAL, FUNCTIONAL AND IDENTITY-RELATED PATTERNS

by

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DEDICATION

To the interested reader,
And in particular, to the code-switcher
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ABSTRACT

Over the years, scholars have gained much insight into language choice and code-switching patterns; however, the research in this area on children and second language (L2) learners has been limited with few exceptions (Fuller, 2009; Potowski, 2004, 2009; Reyes, 2001, 2004; Zentella, 1997). In particular, little research has compared simultaneous (2L1) bilingual children, those who acquired both languages before age three, and sequential (L2) bilingual children, those who learned an additional language after age three. In order to draw these beneficial comparisons, the current dissertation investigates the language choice and code-switching patterns of 2L1 and L2 bilingual children from kindergarten, 1st and 2nd grade classrooms of a Spanish immersion program. The data include over 150 hours of participant observation as well as interviews with students, parents, and teachers and a core dataset of 12 hours of fully transcribed spontaneous classroom audio-recordings. The analysis of language choice patterns yields a Dynamic Model of Social Structures which offers a unique venue from which to consider how various social structures impact language choice as well as how individuals enact social identities through linguistic behaviors. The study of the communicative functions reveals that L2 and 2L1 bilingual children alike use Spanish and English for a wide variety of communicative functions. Finally, a study on the grammatical patterns and strategic discourse functions of code-switching reveals that grammatical switch-points of 2L1 and L2 bilingual code-switching are very similar and that L2 bilinguals code-switch for a variety of strategic purposes, not only to compensate for a gap in knowledge.

In conclusion, this dissertation provides substantial contributions to several fields. For the field of linguistics, the study reveals that 2L1 and L2 bilingual children exhibit similar grammatical switch points. For sociolinguistics, the Dynamic Model of Social Structures
contributes a conceptual tool for the analysis of language choice, which integrates individual language behaviors and social identities. Additionally, a sociolinguistic analysis reveals how 2L1 and L2 bilingual children code-switch for a variety of discursive functions. For the field of education, the results argue for the reconceptualization of code-switching as a resource, demonstrating that code-switching and diverse language choices are used for strategic purposes which often support language learning. In sum, this study sheds light on language choice and code-switching patterns among 2L1 and L2 bilingual children, contributing to the scarce research on this population and allowing a beneficial comparison between the two groups.
CHAPTER 1.
INTRODUCTION

1.1 Outline of the Dissertation

The present dissertation is organized into a 3-article format, and one strong reason for taking up this organization is its interdisciplinary nature. Since this study contributes to different related fields including linguistics, sociolinguistics, and education, the dissertation has been composed of articles prepared for journals in these distinct fields. For this reason, each article takes a slightly different viewpoint or frame of reference for the same topic of study and uses diverse terminology for the participants and language background. This allows for the findings of the present dissertation to be disseminated and contribute to the understanding of language choice and code-switching among the related fields relevant to the interdisciplinary study of second language acquisition and teaching.

The present chapter (Chapter 1) offers an introduction to the research topic as well as an overview of the conceptual framework and relevant research literature. Chapter 2 consists of an explanation of the methodology of the research project, the main research questions, and an extended summary of each of the three appended articles which comprise this dissertation. Chapter 3 presents a summary and synthesis of the conclusions from all three of the articles along with implications for the field of second language acquisition and teaching.

The first article in the appendix, “An Ecological View of Language Choice in a Bilingual Program: A Dynamic Model of Social Structures”, proposes a conceptual tool for language choice which synthesizes the significant, recurrent themes of function and agency throughout language choice research and demonstrates how to implements the model using data from interviews with students, parents and teachers students, teachers, and parents (Appendix A). The
second article, “What Students Do with Words: Language Choice and Communicative Function in the Spanish Immersion Classroom” (Appendix B), includes an overall description of student language choice and communicative function based on 12 hours of fully transcribed audio-recorded spontaneous classroom conversation. The last article, “Does Child Code-Switching Competence Demonstrate Communicative Competence?: A Comparison of Simultaneous and Sequential Bilinguals”, presents an analysis of grammatical patterns and discursive functions of code-switching based on the same corpus of data (Appendix C). This analysis compares simultaneous (2L1) bilinguals, who learned two languages (English and Spanish) before the age of 3, and sequential (L2) bilinguals, who learned Spanish as a second language after age 3.

1.2 Background

Centuries of linguistic research have revealed that despite its common place in our everyday lives, language is extremely complex. Every statement formed in our minds and pronounced on our lips offers a multiplicity of linguistic choices including vocabulary, pitch and tone, just to name a few. Children growing up in a certain society generally learn to speak their society’s language(s) quite proficiently in a short number of years; and knowledge of their language(s) include not only the grammatical form but the rules of appropriateness for interaction in that community. In fact, even individuals described as monolinguals switch between several linguistic varieties of their language, i.e., formal versus informal. Bilingual (and multilingual) individuals have an additional layer of linguistic choices, since they have more than one language from which to choose. Admittedly, “language” is defined rather arbitrarily, as is clearly depicted in the old adage that “a language is a dialect with an army and navy,” often attributed to Max Weinrich. Yet, though a comprehensive meaning of ‘language’ may be elusive, there is a sense in which some languages are more distinct than others. Linguists
describe language in terms of mutual intelligibility, although this description based on the “understanding” of a language is certainly not absolute or fixed.

1.3 What is Language Choice and Code-Switching?

Bilinguals use their mutually unintelligible languages in varying amounts and to different effects. For instance, bilinguals choose which language to speak based on a variety of factors, including the topic of the conversation, the communicative function of the utterance, interlocutor, setting, etc. The study of these factors as well as the overall language preference or language use patterns of bilingual individuals and their communities falls under examinations of language alteration or language choice. For instance, this research would include a description of what languages bilinguals generally speak, where, to whom and when. For example, Carvalho’s (1998) description of the social distribution of Spanish and Portuguese on the Uruguay/Brazil border is a study of language choice patterns.

On the other hand, code-switching is the term reserved for “an individual’s use of two or more language varieties within the same speech event or exchange” (Woolard, 2004, p. 73-74). While most often code-switching research is conducted on the switching between discrete languages, it may refer to switches between different registers (formal, informal), social dialects (y’all, you all) or other differences in ways of speaking as well. Switching that happens within a single conversational turn (before interrupted by another speaker or other environmental factor) is called intra-turn (1) as opposed to a switch across conversational turns or a change in speakers which is called inter-turn (2); this is depicted in the examples below.

(1) CARLA: Yo tenía este seat.
(2) VICTOR: I have that one.

LAURA: ¿Puedo olerlo?
There is considerable debate about whether the term code-switching should be described so loosely, particularly whether single word switches can be classified as code-switching. (See Section 2.2 for more on this topic.) For the purpose of the present dissertation, code-switching is defined as any intra-turn code-switch (1), including single word switches. The language use portrayed in (2) does inform the broader analyses which develop a model of language choice and present an overall picture of language use by communicative function.

1.4 Context of the Problem

Despite the fact that it is natural for bilinguals to use all of their linguistic resources across diverse settings in a variety of ways, prolific negative perceptions of language alternation have promoted the popular misconception that code-switching and language alternation is a characteristic of bilinguals who are incapable of speaking one language well and thereby must resort to some deviant form of mixed language (Weinreich, 1953). This deficit perspective on bilingual language alternation proliferates within and outside the United States. For instance, up until recently, the Royal Academy of the Spanish Language defined “espanglish” as “a form of speech used by some Hispanic groups in the United States, in which they mix deformed elements of vocabulary and grammar from both Spanish and English” (Real Academia Española, emphasis added). Only recently, due in large part to letter-signing efforts by linguistics scholars such as Ana Celia Zentella and Jose del Valle, has the RAE dropped the word “deformed” from its definition. Still, adverse popular misperceptions of language alternation and code-switching impact speakers in unfortunate concrete ways, including prejudice towards bilingual speakers and language policies attempting to regiment the separation of languages in the classroom.

In spite of the deficit discourses surrounding code-switching and language choice, research has not found any empirical evidence for these claims. Quite to the contrary, research
over the years has proven that code-switching is actually a highly developed linguistic skill of highly proficient adult bilinguals, characterized by shared by rules of appropriateness, permeable grammatical switch points, and strategic uses in conversation (Lipski, 1985; Pfaff, 1975; Poplack, 1980; Timm, 1975; Zentella, 1981a, 1982, among many others). However, the characteristics of language choice and code-switching by simultaneous (2L1) bilingual children and second language (L2) learners is less clear, in spite of incipient research in this area (Fuller, 2009; Potowski, 2004, 2009); Reyes, 2001, 2004; Zentella, 1997). Especially scarce are studies which draw a comparison between simultaneous (2L1) bilingual children, who learned both languages before age three, and sequential (L2) bilingual children, who learned a language other than their L1 after age three (except Potowski, 2009). Yet, the present study is the first to examine the code-switching and language choice patterns of 2L1 and L2 bilingual children under the age of 10, contributing to an understanding of the discursive functions, grammatical switch-points and identity-related patterns among very young 2L1 and L2 bilingual children.

1.5 Statement of Problem and Objective

What are the overall patterns of language choice among simultaneous (2L1) and sequential (L2) bilingual children? How do 2L1 and L2 bilingual children compare in terms of grammatical patterns of code-switching? And how do 2L1 and L2 bilingual children compare in terms of discursive functions of code-switching?

Through a study conducted in the kindergarten, 1st grade and 2nd grade classrooms of a two-way Spanish immersion program, this dissertation investigates the patterns of language choice and code-switching of 2L1 and L2 bilingual children. Moreover, a model of language choice which integrates the significant themes of agency and function is proposed and implemented based on interviews with students, parents, and teachers from this school
community (see Appendix A for this study in the format of an article). Additionally, an overall analysis of language use and communicative function reveals which languages the children use for different functions during interactions within the classroom (see Appendix B for this study in the format of an article). To further examine the grammatical patterns and discursive functions of code-switching, the last analysis investigates these aspects in order to describe and compare the characteristics of 2L1 and L2 bilingual children’s code-switching (see Appendix C for this study in the format of an article). It is hoped that these results will inform classroom teaching methods with regards to the role of language alternation and code-switching in the language learning classroom. The findings of all these studies point to the benefits of a flexible bilingual approach to language teaching and learning (Creese & Blacklidge, 2010) which advocates the use of multiple languages within the classroom.
CHAPTER 2.
THEORETICAL FRAMEWORK & LITERATURE REVIEW

Years of systematic research and empirical studies provide clear evidence that there is no reason to heed the negative notions and perceptions regarding language alternation and code-switching. In fact, the research provides every indication that, quite to the contrary, language alternation and code-switching are sophisticated and complex linguistic practices. An overview of the research on language choice and code-switching will be reviewed below in three parts: 1) language choice, 2) grammatical patterns of code-switching, and 3) discursive functions of code-switching.

2.1 Language Choice

The patterns and functions of language use in a bilingual speech community falls into the realm of language choice research, which historically stems from Ferguson’s (1959) notion of diglossia, used to describe a stable linguistic situation consisting of two linguistic varieties, one of high prestige and the other low prestige. In this situation, the linguistic varieties serve distinct and separate functions; for example, one may be used for formal situations while the other is reserved for informal contexts. Fishman (1965) extended this concept beyond the stable diglossic situation, for use in diverse multilingual contexts and presented a list of domains of language behavior relevant for determining “who speaks what language to whom and when” (p. 89). Fishman (1965) captured the essence of language choice research as a consideration of both the individual linguistic behaviors (what language) and the broader contexts (who speaks, to whom, when). Later on, Wei (1994) developed the categorization of language choice as occurring on the macro-societal level (the wider context of language choice) and the micro-
interactional level (individual linguistic behaviors). Wei’s (1994) micro-interactional level deals with code-switching and related language alternation phenomena.

While the expanding body of language choice research examines such diverse contexts as globalization (Kemppainen & Ferrin, 2002), multilingual meetings (Mondada, 2012), and families (Okita, 2002; Yoon, 2008), the present study and the following review will focus on the issue of language choice within the classroom.

2.1.1 Language Choice in the Classroom

Given the multiple levels and factors involved in language choice, it comes as no surprise that scholars have proposed various models to integrate these aspects. Three models which have been used most productively in classroom research will be reviewed below along with the relevant research literature: 1) the functional approach, 2) the agentive approach, and 3) the ecological approach.

2.1.1.1 A Functional Approach

Based on the reported success of an immersion program developed as an experiment in St. Lambert, Quebec, Canada and the subsequent surge of similarly modeled programs, research on immersion schools from 1970 to 1990 consisted for the most part of program assessment and evaluation (Genesee, 1984; Lambert & Tucker, 1972). In a large part it Tarone & Swain (1995) who shifted the focus of research in immersion schools to detailed and systematic research on actual language use within the classroom.

At the time, the only such existing research was either based on non-recorded, unsystematic observations (Blanco-Iglesias, Broner & Tarone, 1995; Broner, 1991; Chan, 1996) or recorded observations consisting of very few tokens (Heitzmann, 1993). Tarone & Swain (1995) used a synthesis of two studies to highlight the need for further research in this area.
They reported how Liu’s (1991, 1994) 26-month longitudinal study of a Chinese boy in a mainstream Australian class corresponded with their own interview with a recent high school graduate who went through a French immersion program. Both the observations by Liu and responses from the interviewee demonstrated a difference in L1 and L2 use for different functions. From this, they conclude that immersion programs over time develop a diglossic situation in which the L1 is used for social functions and the L2 is used for purely academic purposes. It is unfortunate that this article resorted to an analysis of an ESL context in Liu’s study, and the attempted comparison between immersion and submersion programs certainly weakens the argument. However, Tarone & Swain (1995) resorted to such an inequivalent comparison due to the lack of data in this area.

With Tarone as her dissertation advisor, Broner (2000) directly addressed this concern by providing a systematic, quantitative and rigorous analysis of Spanish and English use in the immersion classroom with chi squared, VARBRUL and percentage based analyses. Broner (2000) transcribed and recorded 13 hours of naturally occurring data over 5 months of observations from three 5th grade students at a full immersion school in a Midwestern city. Her research questions revolved around the influence of task and interlocutor on student language choice. Broner (2000) found that the interlocutor was the determining factor in student-teacher interactions, but in peer-peer interactions other factors, such as the type of task, on/off task situations, and the content of the activity, correlated with language choice. Additionally, Broner recorded evidence of students’ actively co-constructing language (Vygotsky, 1981) and using the vernacular L1 for adolescent themes. It is questionable how much weight in terms of generalizability such a small-scaled study may have; however it is also likely that such a detailed systematic study would be difficult with many more participants. Additionally, an exclusive
focus on the classroom may have missed other influencing factors, such as the home environment.

Park (2006) presented a similar study based on seven English-speaking preschool students in a two-way Spanish immersion school. Park (2006) presents this research as an ethnographic case study, developed through the recording of oral productions and responses during play time, story time and circle time as well as formal/informal interviews with teachers and parents. Park (2006) extended previous studies by analyzing the kind of L2 used, not just the amount for which purposes. Among the interesting findings, is the fact that though 2nd year students produced more Spanish, it was with a limited vocabulary. It would seem, then, that quantification of language use is not sufficient to describe student language use. Park (2006) also makes mention of factors in background, personality and social skills as playing a role, although this did not comprise a large part of the discussion. Although it was a step toward a more comprehensive view of student language choice, the discussion of outside factors was still rather scarce.

In another small-scale study involving three participants in a dual immersion elementary program, Minor (2008) conducted a 4-year longitudinal study as a participant-observer, collecting data only during the students’ 2nd and 3rd grade years. Minor herself describes her study as primarily focused on the quality and type of L2 output in addition to student proficiency; however, she includes an ethnographic component in extended observations as well as home interviews. She notes a trend in decreasing Spanish both in terms of amount and competency in students from 2nd to 3rd grade, mentioning how student morphology while correct during kindergarten is produced incorrectly later grades. However, the presentation of these findings fails to mention how a bell-shaped learning curve may come into play here. Although
this study is longitudinal, more years of consistent study would be needed to claim that this trend toward decreasing Spanish competency continues. To the other research, Minor (2008) adds a consideration of the educational environment, positing that the Spanish-only rule in the 2nd grade classroom added motivation for student Spanish use. Additionally, interview data is used to analyze investment and identity influential in language use, although this constitutes a small part of the analysis.

In a study of language choice among four 5th grade students, Potowski (2004) analyzes language use as it corresponds with gender, function, task, and interlocutor. In her study of four 5th grade students, two Spanish L1 and two Spanish L2, in a magnet school in Chicago, Potowski (2004) found that girls spoke more Spanish than boys. Additionally, students used Spanish 82% of the time when talking with the teacher compared to 32% of the time when talking with peers. Spanish was described as used for on task activities, while English was used in peer interactions and to serve a greater range of functions. Potowski (2004) does expand the subject of language choice studies by presenting a detailed thick description of interview data that suggests the notion of investment, motivation and attitudes in language choice. However, in the quantitative analysis, Potowski (2004) suggests that one can determine that there is only one interlocutor and who that is, regaling the possibility that a student may say something to another student while anticipating that the teacher will also hear.

All of the previous studies similarly quantify and identify the functions of different utterances or ‘turns’ of talk, making the same assumption. Tarone & Swain (1995) call for an analysis of social and academic functions for which the L2 is used. Broner (2000) explains the influence of certain functional task and interlocutor. Park (2006) analyzes the kind and amount of L2 used by preschoolers for play time, circle time and story time. Minor (2008) and Potowski
quantify Spanish use in various ways. The first studies suggest that language choice depends purely on environmental factors (Tarone & Swain, 1995; Broner, 2000), but consequent studies present those factors, such as task or interlocutor, as tied in with individual functional needs or desires, such as identification with a certain group (Park, 2006; Minor, 2008; Potowski, 2004).

1) As noted in the above diagram, functional perspective makes a noteworthy contribution to the field of language choice in identifying the ability of language “to reflect and to construct identity” (Shenk, 2007). Contradicting the idea that linguistic phenomena are simply outcomes of group membership, the functional perspective posits that speakers actively create and re-create their identities through their choice of specific linguistic behaviors (Cameron, 2001). Early work in variationist linguistics as well as the ethnography of speaking described the variation in individual’s language in terms of the relationship between the speaker, audience and addressee as well as the topic, function, and social context (Labov, 2003; Saville-Troike, 1982). This perspective, however, grants too little agency to the individual, by representing him/her as almost purely responsive, and at the same time too much agency, by omitting other external forces.

More recently, classroom research on the functions of language choice has revealed the significance of distinct types of communicative functions in the classroom, such as language play
(Broner & Tarone, 2001) in language learning. Additionally, researchers find evidence for the impact of context. For example, Dornyei and Layton (2014) find an increase in creative multilingual discourses surrounding identity in small groups compared to large group settings, and Spezzini (2010) found a decrease in L2 use during structured activities. Yet, research on the communicative functions served by multiple languages in the classroom setting is sparse, and there is no current example of a general study of the broad range of communicative functions of language use.

2.1.1.2 An Agentive Approach

In contrast with the previous functional framework, an agentive approach emphasizes that various agents impact language choices. Agents influencing language choice depicted in the research include but are not limited to the individual student, parents, educators and policy.

It is policy which constitutes the main focus of Gayman’s (2000) study of a two-way French immersion kindergarten class. By combining methods of microethnographic analysis, ethnography of communication, and interactional sociolinguistic, Gayman (2000) produces a very comprehensive study from participant observations, video and audio recordings, interviews, and questionnaires. This research presents a unique contribution to the field, since Gayman (2000) specifically studies the student-student dyad which is often avoided due to the chaotic complications in data acquisition and analysis (Corsaro, 1985). More specifically, Gayman (2000) analyzed language use and social organization within the classroom in order to identify how majority language students interact with peers in order to develop intergroup relationships. The research showed English as noticeably dominant, and it is suggested that this is due to the classes’ social organization. The classroom was not organized in a way that the native French speakers were used as language resources. Also, the linguistic content of student interactions
and play were centered on role definition, which the research poses as unhelpful to promoting French or intergroup relations. The researcher herself notes that she was not allowed access to all parts of the school, confined only to a certain classroom, not permitted to sit in on faculty meetings, and discouraged from conducting parent interviews. These limits to access occur in the process of research, but it must be noted since this limits the extent to which this study can be identified as an ethnography.

Lee, Hill-Bonnet & Gillespie (2008) conducted a study which, very similarly, was in a kindergarten dual immersion classroom, although it was, in this case, a Spanish program. They also used interactional sociolinguistics as a framework for analysis and sought to identify how language policy was enacted within the classroom setting and related to language use. In a study that spanned 12 months, the researchers collected video recordings, field notes and interviews. Although many educators and administration of two-way immersion programs divide spaces, e.g. classrooms, and personnel, e.g. individual teachers, according to languages, Lee, Hill-Bonnet & Gillespie (2008) point that there is little research to provide rational for this common practice. Instead, what they found was that such strict divisions of Spanish and English spaces led to similar strict divisions between interactional spaces and native/non-native groups, along with thickening identities and few intergroup relationships. The researchers also point out that in such a situation the teachers play the ‘role’ of monolinguals, and by doing so they model this type of identity development and language use. Though this study and the previous study present different conclusions, it is noteworthy that just as the native L2 speakers in Gayman’s (2000) study are not presented as resources within the classroom, Lee, Hill-Bonnet, & Gillespie (2008) suggest that both the L1 and L2 are not seen as resources in the differing classes, despite
knowing of linguistic transfer of knowledge. Additionally, both focus on the important aspect of how language policy affects student language choice within the classroom.

Extending the agentive approach, Lam put forth a multi-agentive model (2010), seeking to depict the simultaneity of various agencies and their influence on student language choice.

2) As Lam (2010) pointed out, there is a shortage of this type of study; however, they are not altogether non-existent. Shenk’s (2007) study of a kindergarten and 2\textsuperscript{nd} grade in a Spanish two-way immersion program in the Midwest is one example. Shenk gathered 368 hours of naturally occurring data in the classroom through participant observation in addition to interviews at home, in the community and with other students in a later stage of data collection. Interestingly, Shenk noted that the ‘marked’ or atypical use of Spanish was infrequent and limited as opposed to the ‘marked’ use of English which was frequent and wide-spread. Based on such findings, Shenk discusses how language use is not solely a decision dependent upon routinized use within a setting. She suggests, instead, that preference for the ‘marked’ use of English may be dependent instead upon familial, institutional and societal ideologies influencing the decision. This study does diverge from the above agentive research in its consideration of multiple agents; however, it still fails to depict the individual students themselves as agents in their own language choice.
Another similar study is presented by Lee (2003) in an analysis of 19 kindergarten students in a Korean immersion program. Based on 8 months of observations of the 2 hour language and literacy class, the researcher reports how certain agents influence student language choice. These include parents’ perspectives on bilingualism, definitions of literacy, and most prominently, the power enacted through language choice. Lee describes how students use English the majority of the time due to its ascribed status as a language of power within the classroom as well as the wider school, which is comprised of various immersion programs. Since English is the language the students have in common, this language is the language which students most often use in order to situate themselves in opportunities to enact power. However, Lee (2003) also notes that students also tend to speak Korean when the opportunity arises for students to enact power while doing so, such as is interacting with the teacher in the classroom. In comparison with the other studies, Lee (2003) presents the individual students with greater agency in determining language use, while still representing various other agents involved in the choice.

Although these are the only two studies using the multi-agentive approach within the immersion classroom, other research has been carried out outside of the classroom. Cassenoves & Sankoff (2004) interviewed adolescents on their motivations and attitudes concerning language choice and related this back to the socio-demographic, ideological and political factors surrounding the Galician language. Several other studies present data from interviews with parents of students in immersion programs that explore the parents’ beliefs, including that of language as symbolic and economic capital (Dagenais, 2009), and anglo and latino parents’ views of bilingualism and biliteracy (Romero-Gonzalez, 2009). Though these studies do not
present classroom research as is the focus of the current review, they are clearly related, especially from an agentive perspective.

Among the most significant contributions of agentive and macrosocietal perspectives are the impact of institutional and ideological powers and the concept of identity, two common trends in classroom-based empirical studies. Potowski’s (2004) study of a two-way Spanish immersion classroom provides evidence that the identities and investments (Norton, 2000) of language learners influence classroom patterns of language choice. While Potowski (2004) discovered that individual identities and investments (2004) may benefit or hamper language learning, Ige’s (2010) analysis of the construction of collective identity by students showed evidence that this collective identity may hinder language learning. Another notable macro-societal aspect of language choice includes analyses of power and language ideologies. Along this line of inquiry, Kyratzis (2010) demonstrates how preschool Latino girls reproduce common language ideologies related to gender and status embedded in the U.S. society while at the same time challenging common language patterns. The macro-societal side of language choice research, in essence, analyzes the agency and multiple agents that influence an individual bilingual choices.

2.1.1.3 An Ecological Approach

Although an ecology of language model (Haugen, 1972) does not specifically allude to either of the previously discussed models, elements of each constitute the ecological perspective. The three elements of ecology of language (Haugen, 1972) applicable to research are described by Hornberger (2002) in the following manner: language evolution as the study and description of multilingual interaction, language environment as the interrelationships between the speakers, interlocutors and other factors in the environment, and counteracting language endangerment or
*language maintenance* as the ultimate goal of discovering language choice and language policy. Below I have provided a preliminary sketch of a dynamic, multilayered and interconnected model.

3)

Compared to the previous models, it certainly appears chaotic, but that is part of its import. Instead of oversimplifying the choices made with a stimuli-response based on either a micro or macro-level, an ecological perspective embraces the complicated decision determined through the interrelationships between and through various factors on varying levels simultaneously. Such interactions and connections are at the heart of this approach, and they are symbolized by the double-sided arrows. These arrows, however, are only symbolic, because in reality there should be an arrow connecting each factor to the next. For example, *parents* are agents that affect not only *topic*-based choices but which *register* students use with which *interlocutors* in which *language* or *languages*. Furthermore, parents are connected to the *policy* of the school,
the teachers, and embedded in the particular constructs of society. Even this model is a mere prototype, because it would really require a three-dimensional representation in which each element was interconnected with all others. For this reason the circles are presented as dashed and fluid, because parents or policy may easily flow between the differing elements of the ecology of language approach.

Noticeably, the ecological perspective as well as its accompanying conceptual framework differs significantly from those previously mentioned. In fact, it is often difficult to identify language choice research within this perspective, since the paradigm shift was accompanied with a shift in terminology. Instead of investigating “language choice” as a monolithic, black or white, Spanish or English decision, or even using that terminology, Hornberger (2002) emphasizes the complicated, intricate multiple intersections of literacies and languages along a continuum. Instead, the issue of language choice may be reframed as ‘the language continuum’. Studies based on this perspective have been used to successfully analyze various contexts of multilingual education including mainstream environments with multilingual populations (Skilton-Sylvester, 2003) as well as bilingual classrooms. The solitary example of an ecology of language approach in a two-way immersion classroom is evidenced in a chapter by Jeon (2003).

In fact, Jeon (2003) instead of using the ecological framework to analyze data from a two-way immersion classroom, the chapter uses the model to develop a rationale of this particular type of immersion program. Through a detailed overview of various programs, Jeon (2003) uses the ecological framework in order to contextualize two-way immersion program policies within the realm of language policies. Jeon (2003) especially employs the ecological framework in order to provide an analysis of the underlying ideologies embedded in the language policies. This connection is quite well-suited to the ecological framework, since Hornberger
(2002) describes it as “captur[ing] a set of ideological underpinnings for a multilingual language policy” in an evolving ecosystem as the speakers “interact with their socio-political, economic and cultural environments” (p. 35).

Hornberger’s (2002) continua of biliteracy is a conceptual model which has quite successfully been applied to multilingual/multicultural classroom contexts. Such a perspective recognizes the complex connections and interrelationships, while integrating functional and agentive factors of language choice. However, the field lacks a conceptual model of language choice which is applicable to a variety of contexts of language choice, not solely the classroom. Language learning, after all, is not limited to that setting. A second area for expansion for the ecological framework of language choice is one which views language as a social structure among other social structures (Gafaranga, 2005). A proposed model that fills this gap is detailed in the study of “An Ecological Approach to Language Choice in a Bilingual Program: A Dynamic Model of Social Structures” (Appendix A).

Stemming from the roots of diglossia (Ferguson, 1959) and the domains of language choice (Fishman, 1965, 1972), studies of language choice have been quite productive in describing the situation of the multilingual classroom, and “who speaks what languages to whom and when” (Fishman, 1972). Three models of language choice have been particularly productive throughout classroom research on language choice, providing evidence for how context and other factors impact language choice (Functional Approach), how different agents influence language choice in the classroom (Agentive Approach), and how various factors influence one another (Ecological Approach), noting that there is room in the field for an ecological framework which may be applied across disciplines.
The next section moves from a broad perspective of typical language choices to a specific attention to code-switching, switching languages within a conversation.

2.2 Code-Switching

While code-switching is the most widely studied, there exists a host of related language alternation phenomena which occur in cases of language contact and are quite difficult to distinguish (Poplack, 1993). One such contact phenomena is borrowing, an umbrella term which commonly refers to three different types of situations: 1) loans (or loanwords) which are structurally adopted and socially acceptable in monolingual speech (such as canyon or taco in English), 2) loanshifts which extend the meaning of the word in the adopting language (such as, troca for truck), and 3) ‘nonce’ borrowings which include a single idiosyncratic use of a non-assimilated item (Anderson & Toribio, 2007). Congruence also refers to the process of borrowing, although this term is reserved for the transfer of a grammatical structure from one language to another (Poplack, 1993, p. 255-256; see also Sebba, 2009 for further discussion). Transfer (or interference) is quite similar to code-switching in involving “elements of language A in stretches of speech of language B” (Treffers-Daller, 2009), although a key difference seems to be that of control, as speakers may produce transfer “even in the most monolingual of situations” (Grosjean, 2001, p. 7). In the case of language contact between typologically similar languages, such as Portuguese and Spanish, it becomes complicated to sort out which languages the individual is speaking. Woolard (1998), for this reason, refers in these situations to language contact phenomena as ‘bivalency’ and ‘simultaneity’.

Yet of all these practices, code-switching is unique in referring to the juxtaposition of sentences or sentence fragments, each of which is internally consistent with morphological and syntactic (and optionally, phonological) rules of the language of its provenance (Poplack, 1993).
As one of the most easily recognizable linguistic patterns, code-switching has been the site of significant academic inquiry across the disciplines of linguistic, sociolinguistic and psycholinguistics (see Carvalho, 2010 for a complete review). The present literature review will focus on linguistic (structural) and sociolinguistic (functional) aspects of code-switching particularly as they relate to children. First, though, it is important to point out several specific considerations regarding the characteristics of child code-switching.

2.2.1 Child Code-Switching

Research on child code-switching is complicated by a number of factors which will be reviewed below, including 1) the debatable distinction between code-switching and code-mixing, 2) the prevalence of single-word code-switching in child code-switching data, (Saunders, 1985; Lindholm & Padilla, 1978; Redlinger & Park, 1980; de Houwer, 1990; Jisa, 2000) and 3) diverse terminology used to describe children’s multiple languages.

2.2.1.1 The One-System/Two-System Debate

At the heart of the debate over code-switching or ‘code-mixing’ among bilingual children is whether children have access to only one grammar and one lexicon, the ‘one system hypothesis’ (Taeschner, 1983; Volterra & Taeschner, 1978), or whether children from the very start have access to two language systems. In 1994, Meisel proposed that children in the early years have access to ‘one system’, declaring the switching to be ungrammatical ‘code-mixing’, but he argued that grammatical code-switching may occur as early as 2 or 2.5 years old and more subtle switching may appear only at 5 years or older and then without the full range of functions.

On the other side of the one-system v. two-system debate, another explanation for the changes in code-switching patterns among children comes from the developmental perspective. From this perspective, it is seen as natural that as children get older, they use more sophisticated
discourse strategies (Ervin-Tripp & Mitchell-Kernan, 1977). Then, the nature of language use and code-switching among developing bilingual children should be analyzed in relation to the development of bilingual communicative competence (Genesee, 2002; Jisa, 2000; Reyes, 1998, 2001, 2004). Evidence of differences between grammatical and functional patterns of code-switching are to be expected as children become older and are exposed to different social and linguistic experiences (Reyes, 2004). The present dissertation takes up the developmental approach and in doing so uses the term code-switching for tokens of intra-turn switching by the 5 and 10 year old 2L1 and L2 bilingual children in the study.

2.2.1.2 Single-Word Switches

A second prominent characteristic of child code-switching pointed out by many researchers is the predominance of single-word switches (de Houwer, 1990; Jisa, 2000; Lindholm & Padilla, 1978; Redlinger & Park, 1980; Saunders, 1988). This problem is complicated by the fact that single-word switches constitute the highest of many bilingual corpora, whether the participants are adults or children (Berk-Seligson, 1986; Poplack & Meechan, 1998), and in that regard, the present corpus is no exception.

The essence of the problem of single-word switches is that they are not easily categorized as code-switches or borrowings. While scholars have suggested that the difference lies in the degree of integration, phonological, morphological or otherwise (Grosjean, 1995), it is not always possible to make these distinctions. Pfaff (1979) claims that to fully make this distinction, the researcher must know whether an equivalent exists in the other language, whether it is actively used in the community and whether the speaker knows it and which languages the speakers relegates the word as belonging to (p. 297). In an alternative systematic approach Poplack, Sankoff & Miller (1988) quantitatively analyzed English words in five French contexts...
in five regions of Canada, comparing usage frequencies and various measures of integration. Research drawing on the variationist paradigm on different language pairs has shown this methodology to be useful in providing a solution through an analysis of all the tokens in a given category (e.g., Budzhak-Jones, 1998; Eze, 1998; Poplack & Meechan, 1995). From this extensive, systematic research, it appears that most single-word switches in a corpus are borrowings, and only a small minority are code-switches. For this reason, many researchers in the field choose to credit only multi-word switches as code-switches (MacSwan, 1999).

However, most of the preceding research, differentiating single-word code-switches and borrowings, has been carried out with respect to adult bilinguals (except Shin, 2002). Research on bilingual children broadly demonstrates an even higher degree of code-switching at lower-level constituents (i.e., single-word) than adults who switch more often at higher-level constituents (i.e., clause) (Reyes, 2001, 2004). Furthermore, many single-word switches in bilingual children’s speech can be attributed to an abundance of switches for nouns (Redlinger & Park, 1980; Lindhom & Padilla, 1978; Poplack, 1980; Berk-Seligson, 1986) or noun phrases (Edwards & Gardner-Chloros, 2007), which may be related to common topics of conversation or the development of bilingual competence. Single-word versus multi-word switching may also be influenced by the accepted patterns of code-switching in the wider community; Bentahila & Davies (1995). In the case of the classroom, the acceptability of the single-word switch among children may influence students’ switching patterns. Due to the exceptionally high rate of single-word switches among bilingual children, within the present corpus, and the present developmental perspective of code-switching, single-word switches are counted as tokens of code-switching in the present research project. However, future analyses will seek to differentiate borrowings and code-switches and analyze their grammatical patterns and
discursive functions by the students and across grades, especially since Shin (2002) found that single-word switches by 1st graders were mostly borrowings.

2.2.1.3 Diverse Terminology for Child Code-Switching

A third notable attribute of child code-switching is that it is often difficult to disentangle terminology related to bilingual children’s languages. Different subfields and disciplines have taken to labeling bilingual children based on the field’s most relevant concerns and research questions. For this reason, the appended articles, which form a part of this dissertation, identify the participants in distinct terms. In the field of second language acquisition, researchers use the terms second (L2) language versus native speaker, as the study on an ecological approach to language choice in a bilingual program in Appendix A demonstrates. The fields of educational linguistics and sociolinguistics focus on the contexts of learning through a description of heritage language (HL) speakers and L2 learners, as in the discussion on language choice and communicative function in Appendix B does. And in general linguistics, the concern with the order and age of acquisition is demonstrated in the distinction between simultaneous (2L1) and sequential (L2) bilingualism, also the terms used in the analysis of grammatical patterns and discursive functions of code-switching in Appendix C.

For the purposes of the present dissertation, the term ‘code-switching’ (not code-mixing) is used to refer to the alternate use of two or more languages among bilingual children. This is based on a developmental paradigm which acknowledges that communicative competence does not happen in a day (Jisa, 2000). Additionally, the present study includes single-word switches and multi-word switches for two primary reasons in order to present a descriptive analysis including a feature which is highly characteristic of child and L2 learner code-switching. Future studies will seek to disentangle the two and further compare borrowing and code-switching
patterns. Finally, diverse terms used across various sub-disciplines are used in the ensuing appended articles (A-C), while the preliminary chapters refer to 2L1 and L2 bilinguals and L2 learners for clarity and continuity.

After having discussed code-switching and child code-switching, the following two subsections will detail what Boztepe (2003) refers to as the two main directions in code-switching research: structural and sociolinguistic. Within these constructs, structural research focuses on grammatical constraints (see Section 2.2.2), and sociolinguistic research approaches code-switching as discourse-related (see Section 2.2.3)

2.2.2 Grammatical Patterns of Code-Switching

The structural aspect of code-switching has been analyzed among a variety of populations. The present overview of the literature will separate this fruitful line of inquiry into three sections in order to analyze the grammatical patterns of code-switching among: 1) bilingual adults, 2) adult L2 learners, and 3) bilingual children.

2.2.2.1 Grammatical Patterns of Code-Switching among Bilingual Adults

Over forty years of research on the grammatical aspects of code-switching has found code-switching to be characterized by similar grammatical switch points, shared rules of appropriateness, and strategic uses in conversation (Lipski, 1985; Pfaff, 1975; Poplack, 1980; Timm, 1975; Zentella, 1981a, 1982, among many others). Early on, many studies sought to develop grammatical constraints for code-switching (Lipski, 1985; Pfaff, 1979). The explanatory principles are what distinguished Poplack’s (1980) analysis of Spanish and English use in a Puerto Rican community, including the free morpheme constraint and the equivalence constraint.

(1) The Free Morpheme Constraint
Codes may be switched after any constituent in discourse provided that constituent is not a bound morpheme.
(2) *The Equivalence Constraint*

Code-switches will occur at points in discourse where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language. (Poplack, 1980, p. 586)

Both constraints taken together allow only code-switches which are grammatical in both the L1 and L2, thereby indicating a degree of competence in both languages. It is important to note that Poplack (1980) considers the free morpheme constraint and the equivalence constraint to be reflective of tendencies for the particular data set, not intended to be generalized to the level of linguistic universals.

Nevertheless, many researchers used Poplack’s (1980) constraints as a point of comparison resulting in what many deemed counter-evidence to what was never intended to constitute linguistic universals. Counter-examples came from languages such as Moroccan Arabic/French (Bentahila & Davies, 1983), Spanish/Hebrew (Berk-Seligson, 1986), and Italian/English (Belazi, Rubin & Toribio, 1994). Hankamer (1989) pointed out that many exceptions were from the agglutinative languages due to the productive affixation of morphemes to stems. Clyne (1987) also constructed a counterargument to Poplack’s (1980) constraints using data from German/English and Dutch/English bilingual speakers in Australia, but his most important contribution was extending the notion of ‘triggering’ (Clyne, 1967). For Clyne a switch from one language to another is triggered by a lexical item of ambiguous affiliation (belonging to both languages).

Another important and quite different model also based on adult bilinguals is Myers-Scotton’s (1992, 1993a) Matrix Language Frame Model. Inspired by Joshi’s (1985) work on insertion, this model views code-switching as “the selection by bilinguals or multilinguals of forms from an embedded language (EL) into utterances of a matrix language (ML) during the same conversation” (Myers-Scotton, 1993b, p. 4).
(3) **The Morpheme Order Principle**  
In ML + EL constituents consisting of singly occurring EL lexemes and any number of ML morphemes, surface morpheme order (reflecting surface syntactic relations) will be that of the ML.

(4) **The System Morpheme Principle**  
In ML + EL constituents, all system morphemes which have grammatical relations external to their head constituent (i.e., which participate in the sentence’s thematic role grid) will come from the ML.

(5) **The Blocking Hypothesis**  
In ML + EL constituents, a blocking filter blocks any EL content morpheme which is not congruent with the ML with respect to three levels of abstraction regarding subcategorization.  
(Myers-Scotton, 1993a, p. 83-120)

In other words, items from the embedded language (EL), typically the weaker language, may be inserted (Morpheme Order Principle) into the framework of the matrix language (ML) according to its grammatical relations (System Morpheme Principle) as long as congruency may be maintained (the Blocking Hypothesis).

In a comparison of these two influential models of grammatical constraints on code-switching, Nishimura (1986) comments that researchers who work on typologically similar languages tend to assume symmetrical models (Poplack, 1980) while those working on typologically distinct languages assume asymmetrical models of insertion (Myers-Scotton, 1992, 1993a). The amount of symmetry inherent in these models, then, fits distinct language contact situations, suggesting that these perhaps may not be competing models but complementary models. For this reason the present study on Spanish and English code-switching, that studied by Poplack, takes up an analysis of the equivalence constraint in the appended article which analyzes grammatical patterns of child code-switching (Appendix C).

While Poplack’s (1980) grammatical constraints and Myers-Scotton’s (1993a) matrix language frame model are two of the more influential models, there are certainly others. Some
linguists (MacSwan, 1999) have applied Chomsky’s minimalist framework to code-switching data. This perspective suggests that existing monolingual grammar theory is “necessary and sufficient for explaining bilingual code-switching” (Boztepe, 2003, p. 10). The government and binding theory (Chomsky, 1981) is another monolingual grammar theory which has been applied to code-switching by various researchers (DiSciullo, Muysken & Singh, 1986). This theory, based on the concept of dependency instead of equivalence, posits that a code-switch may only occur between two constituents if they are not lexically dependent on one another.

Some, such as Toribio (2001a), evaluate Di Sciullo’s model (1986) of government relations as overly restricted, and instead support Belazi et al’s model (1994) of coherence and co-occurrence restrictions under the Functional Head Constraint (FHC). Various studies have supported the Functional Head Constraint, such as an on-line processing task (Sunderman, 1996) and elicited reading, recounting and writing activities (Toribio, 2000e). Furthermore, FHC coincides with psycholinguistic models by extending the scope of f-selection to include language indexation processes. Recent research, however, has questioned the Functional Head Constraint (Mahootian & Santorini, 1996; Nishimura, 1997). The models reviewed here are not meant as an exhaustive list of models of grammatical constraints of code-switching but rather a representative sample and demonstration of the productivity and prominence of this line of research.

The previous research has demonstrated the important line of inquiry which sought to develop models of code-switching; however, studies on the structural code-switching patterns of adults also reveal how specific grammatical patterns correlate with proficiency level. One grammatical pattern which has been analyzed is the comparison between intrasentential code-switches, switches that occur within a sentence, and intersentential switches are those switches that occur between sentences. Interestingly, reports of adult bilingual use of intrasentential and
intersentential switches are inconsistent across studies. For instance, Poplack’s (1980) data suggest that fluent bilinguals use more intrasentential switching, leading her to propose that this type of switching is representative of a high level of bilingual competency. Similarly, Moroccans living in the Netherlands with a greater proficiency in Arabic and Dutch have been reported to use more intrasentential switches (Nortier, 1989, p. 115).

This pattern differs, however, from Berg-Seligson (1986) who found no difference between intrasentential and intersentential switching by Hebrew-Spanish bilinguals. Additionally, it differs from Toribio’s (2001) study in which intrasentential code-switching occurs only within written stories and not oral retellings. Toribio’s (2001) findings may be representative of the nature of the study as a perception experiment dealing with grammaticality judgment tasks. Bentahila & Davies (1995) also present contrasting evidence, since the more proficient French-Arabic bilinguals in their study exhibit less intrasentential switches than the younger, less proficient bilinguals. They suggest, however, that different structural constraints on switching may be the result of the role and status of these languages over the years. In fact, Muysken (1991) presents a similar phenomenon when data on Mexican Americans (Pfaff, 1979) and Puertoricans (Poplack, 1980) are compared. The Mexican data contains more intrasentential switches, while the Puertorican data is composed mainly of intersentential switches. Bentahila & Davies (1995) suggest that grammatical patterns of code-switching are highly dependent on “the circumstances in which bilinguals have encountered their two languages, the roles these languages fulfill in the community and in the individual’s lifestyle, and the experience they have using [the languages]” (p. 91). In sum, the data on adult bilinguals has thus far demonstrated that proficiency does not correlate with the relative proportion of intra- or inter-sentential code-switching patterns.
In addition to the type of the code-switch, the degree of the grammaticality is often another basis for analyzing patterns of code-switching. Poplack (1980) notes that while more proficient bilinguals incorporated more intrasentential switches and lower proficient bilinguals used more intersentential switches, all participants were able to maintain the grammaticality of their switches, as determined by the free morpheme and equivalency constraints. Similarly, Toribio (2001) notes that all participants reading a story with more switching at boundaries “known to violate code-switching norms” commented that it was more difficult and confusing and also tended to correct these ill-formed code-switches. However, it is important to note that Toribio (2001a) does not describe from where these “known” violations are derived or what this is based upon. In the retelling task in the same study, code-switches were largely at sentence boundaries, for stylistic alternations, for purposes common in bilingual speech and with grammatical patterns common to bilingual speech. These findings would suggest that all adult bilinguals, independent of their proficiency levels are sensitive to grammaticality in code-switching.

Another grammatical pattern of code-switching which is commonly analyzed in adult bilinguals is the functional categories of switches. In Poplack’s study (1980) with adult New York Puerto Ricans, the most frequent switch points were found to be tags (22.5%), sentence (20.3%), noun (9.5%), object noun phrases (7.6%), and interjections (6.3%). Lipski (1985) found similar results in his study of adult Mexican Americans in Houston: prepositions (16.13%), sentence (15.67%), conjunctions (11.19%), tag (9.76%), and noun (8.27%). As Lipski (1985) noted in comparing this data, the “degree of correspondence is quite high, despite the different classificatory schemes which have been utilized” (p.25). Specifically, nouns, sentences and tag switches are among the top five most common switch points for adult bilinguals in both contexts.
Research on the grammatical patterns of code-switching among adult bilinguals has proven quite productive. In the early years, this line of research led to the development of many models of code-switching constraints. Also, the correlation between types of code-switches (intrasentential v. intersentential) and proficiency level has proven inconsistent across studies, which may be impacted by the patterns of the individual community (Bentahila & Davies, 1995; Muysken, 1991). On the other hand, similarities among the top switch-points of grammatical categories across different bilingual communities point towards common grammatical patterns (Lipski, 1985; Poplack, 1980). While the preceding studies analyze proficiency as related to code-switching, these populations all deal with bilinguals and not L2 learners. The next section will review the literature on the grammatical patterns of code-switching by L2 learners, or sequential (L2) bilinguals.

2.2.2.2 Grammatical Patterns of Code-Switching among Adult L2 Learners

For many years, and even now, the use of L1 within the L2 context is often popularly conceived of as a problem. Only in very recent years have linguists begun to question this assumption and analyze L2 learners’ use of code-switching.

Jake (1997) considers SLA a language contact situation and code-switching as characteristic of the interlanguage (IL), which L2 learners use when they do not have full access to the L2. Based on an analysis using Myers-Scotton’s (1993) matrix language frame model, Jake (1997) notes that while the learner’s goal is for the IL to move toward the target language, there are often gaps in L2 learners’ lemmas. This model predicts that the L1 can only function as an embedded language, filling in content morpheme lexical structure by contributing abstract lexical structure. Jake (1997) concludes that an L2 learner’s ability (and by extension, code-switching ability) is dependent on the development of the lemma. The content elements on the conceptual
level (lemma) reflect grammatical competence, because it is the lemma that structures the grammatical frame.

Another study by Poulisse & Bongaerts (1994) centers on L2 learner’s unintentional switching patterns. They analyzed four different tasks (image identification, story retelling, 15 minute casual talk) completed by 45 Dutch learners of English at 3 different proficiency levels. The observed high occurrence of L1 function words in L2 speech is problematic for Myers-Scotton’s (1992) Matrix Language Frame Model, which does not allow for the embedded system morphemes in the matrix language. However, the data does confirm Jake’s (1997) finding that incidental code-switches are proficiency-related.

In a study on perception, Toribio (2001b) presents an analysis of code-switching competence through grammatical judgment tasks. The study consisted of 104 second language learners at three levels of proficiency who were asked to make judgments of acceptability based on pairs of target sentences. The results suggest that while advanced L2 learners have access to grammatical knowledge, beginning L2 learners do not have access, and intermediate L2 learners work based off of knowledge they have not fully mastered. Levels of acceptability ratings correlate with proficiency level, and Toribio argues that this suggests the accessibility of UG in L2 learning and the applicability of Herscheshon’s (2000) Construction model of L2 acquisition, which proposes that acquisition of the lexicon (and further morpholexical features) is the major task of the learner.

Costa & Santesteban (2004) also investigate whether proficiency levels affect code-switching, but they do so by comparing the performance of proficient bilinguals and L2 learners. In their first experiment, including two different groups of L2 learners (Spanish-Catalan & Korean-Spanish), switching from L2 to L1 was more difficult for both groups. However, in their
second experiment with highly proficient bilinguals (Spanish-Catalan), switching costs were the same for both L1 and L2. One noticeable finding of this set of experiments is that while switching costs exist for all bilingual speakers, less proficient L2 learners exhibit asymmetrical switching costs, meaning that it is more difficult to switch from L2 to L1. This finding implies that the L1 is likely more suppressed during L2 use than the L2 during L1 use.

As of yet, only one study has reported the grammatical categories of L2 learners’ code-switches. For 5 female Japanese EFL students, Ogane (1997) reports that among the students’ code-switches are tags (8%), interjections/short-fixed expressions (9%), conjunctions (3%), adjectives/adverbs (4%), nouns (10%), fillers (10%), phrases/sentences (35%). Interestingly, some patterns are similar among this study and studies on adult bilinguals; specifically, nouns and phrases/sentences are among the top five categories of switch points (Lipski, 1985; Poplack, 1980).

Although fewer studies have explored the grammatical patterns of L2 learner code-switching, it reveals several important features. Jake (1997) demonstrates the application of the matrix language model framework (Myers-Scotton, 1993) which suggests that an L2 learner’s code-switching ability depends upon the development of the lemma, since grammatical information is encoded in the lemma. Although Poulisse & Bongaerts’ (1994) data contradicts the matrix language model framework, they similarly report that incidental code-switching is proficiency-related. In a perceptions study, Toribio (2001) similarly finds that acceptability ratings correspond with proficiency. In a series of experiments, Costa & Santesteban (2004) similarly find that the costs of code-switching into the dominant L1 are higher for less proficient L2 learners. Also, Ogane (1997) reports the grammatical categories of the most common switch-points to be similar to adult bilingual switching patterns. So, the L2 learners are similar to the
adult bilinguals in both grammatical categories of switch points and the prominent impact of proficiency on grammatical patterns of code-switching.

**2.2.2.3 Grammatical Patterns of Code-Switching among Bilingual Children**

While research on the grammatical patterns of child code-switching is less prevalent, work has determined the grammatical categories of common switch-points while also demonstrating the impact of age and proficiency on child code-switching.

As far as the grammatical categories of switch points, single word switches are a distinguishing feature of child code-switching (de Houwer, 1990; Jisa, 2000; Lindholm & Padilla, 1978; Redlinger & Park, 1980; Saunders, 1985). Also notable is the abundance of switches for nouns (Berk-Seligson, 1986; Lindhom & Padilla, 1978; Poplack, 1980; Redlinger & Park, 1980) or noun phrases (Edwards & Gardner-Chloros, 2007). Additionally, researchers have found that children code-switch as tag switches (Meisel, 1995) and whole clauses or sentences (Meisel, 1995; Zentella, 1997).

With regards to age as a factor of child code-switching, Reyes (2001) finds a correlation between age and code-switching patterns in a study among school children. Older children (10-year-olds) in her study use more code-switching, while younger children (7-year-olds) use borrowings more often. This pattern supports other studies which find that bilinguals with lower proficiency levels code-switch less often (McClure, 1977). Additionally, 10-year-olds have a more even distribution among code-switching categories. Additionally, Reyes’ (2001) findings suggest that nonce-borrowings, one-time borrowings, are used by younger children developing bilingual communicative competence.

Similarly, in an ethnographic study of 5 New York Puerto Rican girls in ‘el bloque’, Zentella (1997) notes that she observed the girls acquire more adult-like code-switching patterns
over the 18 months of the study. These more adult-like patterns included an increasing preference for intrasentential switches as well as switches which increasingly adhered to the equivalence constraint set forth by Poplack (1980).

Potowski (2009) employs the matrix language model (Myers-Scotton, 1993) in an analysis of 10 and 11-year-old heritage learners (Spanish L1, English L2) and L2 learners (Spanish L2, English L1) in a dual immersion program. Potowski reports that both heritage learners and L2 learners use single-word switches at a similar rate but that heritage learners use twice as many multi-word intrasentential code-switches than the L2 learners of Spanish. According to Potowski, this difference is conceivably based on the heritage learners’ greater proficiency in both languages, based on their greater access to their L2 which in this case is English and the societal majority language.

In general, research on child code-switching has noted an overall high rate of single-word switches and a frequent switch-point of nouns/noun phrases. Recent work has also demonstrated the role of age and language proficiency. These findings confirm a developmental perspective of code-switching competence as children increasingly adhere to grammatical switch points, switch across a wider variety of grammatical categories and utilize multi-word code-switches.

Through research on adult bilinguals, adult L2 learners and bilingual children, the field has gained considerable insight into the grammatical patterns of code-switching. The following section will review research on the discursive functions of code-switching.

2.2.3 Discursive Functions of Code-Switching

One of the most influential and enduring approaches to the functions of code-switching is that of John Gumperz, whose *situational* and *metaphorical code-switching* still provides a useful framework today. This framework was developed based on a study of a Norwegian village
where Blom & Gumperz (1972) observed systematic and purposeful switching between the standard and local dialects. Based on their observations, they proposed a distinction between situational code-switching, marking a change in the definition of a speech event, and metaphorical code-switching (or conversational code-switching), which does not mark a change in a speech event. While it may be tempting to treat this framework as one of opposing and exclusive categories, Gumperz later referred to these as points on a continuum (Gumperz, 1977).

Additionally, it is important to note a key distinction between this and other more macro-level approaches, such as the ones proposed by Fishman (1965, 1972) and Ferguson (1959). Blom & Gumperz (1972) viewed patterns as deriving from individual choices as opposed to a perspective of stable, habitual norms of language use which are considered as having a one-to-one relationship, especially evident in Fishman’s (1965, 1972) concept of domain. Later on, Auer (1984) presented an alternative method of analysis, which also evades macrosociological analyses. Influenced by conversational analysis, Auer (1984) focuses on the local production of meaning in the sequence of a given interaction. Instead of acting as a metaphor of macrosociocal identities, a code-switch may itself have a rhetorical effect, such as a shift in a narrator’s voice or change in topic.

In a framework for the functions of code-switching, Gumperz (1982) includes: 1) quotations, 2) addressee specification, 3) interjections, 4) reiteration, 5) message qualification, 6) personalization versus objectivization. Others have since presented various alternative and similar typologies (Gardner-Chloros, 1991; Saville-Troike, 1982), one of the most famous being that developed by Hymes (1974). Hymes’ contribution, however, extends to a methodological framework, which he called the ‘ethnography of speaking’. Though not specifically dedicated to the functions of code-switching, the ‘ethnography of speaking’ is certainly relevant to such an
analysis as it is “concerned with situations and uses, the patterns and functions, of speaking as an activity in its own right” (Hymes, 1974, p.16). A key concept in this theory is that of a ‘speech community’ which he uses as a point of reference. Instead of the boundaries of an abstract linguistic code, Hymes (1974) considers all varieties found within a speech community as pertaining to the analysis of an ethnography of speaking. Hymes (1974) delineates 3 aspects of speech economy: 1) speech events, which are often observed by the words that name them, 2) constituent factors, such as sender, receiver, topic, setting, and 3) functions of speech events, in which the focus is the difference between/among communities. And furthermore, he outlines 7 broad types of function as follows: expressive, directive, poetic, contact, metalinguistic, referential, and contextual. For Hymes (1974), the primary objective of the ethnographer is to determine which functions are being “encoded” and “decoded”, in other words, which functions are intended and perceived by participants (p.34). While similar in goal, Gumperz and Hymes come from distinct backgrounds. While Gumperz is highly influenced by a sociolinguistic background, Hymes methods and perspective is that of ethnography and concerned with describing the ‘speech community’.

2.2.3.1 Functions of Code-Switching among Bilingual Children

Since the 1980’s, the field has seen a new focus on the functions of child code-switching (Alvarez, 1979; Genishi, 1976; Reyes, 2001, 2004; Zentella, 1982, 1997). Based on the developmental perspective of child code-switching (Jisa, 2000), many studies are either longitudinal in nature or involve a diverse population of children of varying age levels in order to compare code-switching at different ages and varying proficiency levels. These studies, for instance, have observed the variation in functions of code-switching across ages, showing an increase in accommodation and clarification (Reyes, 2004) and a decrease in literal translation
(Cheng, 2003) for older children. Research along these lines demonstrates how children develop the complex linguistic skill of code-switching and become more effective at communicating.

2.2.3.2 The Influence of Context

Researchers on code-switching has been interested in the influence of context on code-switching. As previously mentioned, research along these lines started with the rather rigid one-to-one analyses of Fishman’s proposed language domains (1965, 1972). Since then, the influence of context has been reconceptualized as more flexible, but contextual factors such as participant, context, function, topic, and situation continue to be important in functional analyses of code-switching.

In Reyes’ (2004) study of 7 and 10-year-old students’ code-switching practices during a science experiment, code-switching is seen as dependent on student age and context. During the observation and recording of these pairs of students, students engaged in casual social talk, talk during the science experiment while on-task and off-task talk during the science experiment. The results showed a difference in the function of code-switching based on the context of the child’s talk. During the social setting, code-switching for the purpose of topic shift was most common, while the most common function of code-switching during the science experiment was clarification followed by emphasis. Reyes (2004) proposes that code-switching is a skill and a resource (Ruiz, 1984) which children use in different ways based on the context or purpose of the conversation in which they are engaged.

Interestingly, while Reyes (2004) notes an interesting difference in code-switching functions based on topic, the children in Cheng’s (2003) study use the same exact words in their code-switches across context, but these switches denote a different sense of meaning depending on the topic. Appending an English sentence with the particle *lah* (derived from Malay) or *loh* (derived
from Chinese) is a common feature of Malaysian English. However, Cheng (2003) points out through various examples that these same particles may be used for a variety of functions depending on the topic and context of the conversation: adding a sense of persuasion, adding a sense of emphasis, creating a sense of camaraderie, softening the effect of a sentence, acting as a period of a sentence (p. 69-70).

In a study of how Spanglish mediates conversation and social interaction in a 6th grade class in East L.A., Martínez (2010) illustrates how code-switching is used in shifting voices for different audiences and communicating subtle nuances of meaning. The cultural modeling framework (Lee, 1995, 2000, 2007) and an ethnographic microanalysis of social interaction (Goodwin, 1990; Erickson, 2004) allow Martínez (2010) to explore code-switching as a semiotic tool that accomplishes important conversational work. Audience is seen as an important factor in code-switching, since of the 488 recorded instances of code-switching, only 2 were addressing monolinguals. Martínez (2010) further argues that the students’ skills correspond with California writing standards of awareness of audience, background and interests of audience, understanding “shades of meaning”, and recognition of foreign words. Martínez proposes educators use Spanglish as a resource by “helping students extend the skills embedded in their use of Spanglish by applying them to specific academic literacy tasks” (p.141).

2.2.3.3 The Influence of the Speech Community

‘Speech communities’ are not simply a group of people who speak the same language; instead, a speech community implies a group with shared rules of speaking and interpretation of speech (Hymes, 1974). This important concept has been influential throughout linguistics, including studies on code-switching in young bilinguals.
Zentella’s (1997) seminal ethnographic study on how five New York Puerto Rican children go about “doing being bilingual” (Auer, 1984, p. 7) departs from a perspective of ‘el bloque’ (the block) as a speech community (Hymes, 1974). According to Zentella (1997) the linguistic patterns of the children on ‘el bloque’ are related to cultural norms which reflect, and are shaped by, larger political, socio-economic and cultural forces (p. 5). This community holds shared knowledge of how to manage conversations and respect social values based on setting and other cues. For example, parents explicitly advocated the ‘community norm’ that children respond with the language spoken to them, out of concern for monolinguals in the community.

The functions of code-switching she observed in this community included clarification and/or emphasis, translations, requests, and crutch-like code-mixing. Zentella (1997) concludes that code-switching is a conversational activity negotiated between speakers dependent on external and internal factors allowing speakers to realign themselves, clarify their messages, and control their interlocutors.

While Kyratzis (2010) does not mention ‘speech communities’ in Hymes’ (1974) terminology, similar ideas are present in her ethnographic study of 8 Latina girls in a bilingual Spanish-English preschool in California. In fact, Kyratzis (2010) considers the role of two communites: the girls’ peer group and the English-only language-in-education policies of the wider society. Kyratzis (2010) echoes Zentella’s (1997) explanation that children in multilingual societies make use of their multiple languages in attempting to speak as members of the social networks that surround them. While seven of the girls in the peer group are bilingual, one speaks only English, and this natural affects the girls’ patterns of communication in free play. The girls’ code-switching enabled them to interact with one another and “forge alliances with one another” despite their differences in language competencies (Kyratzis, 2010, p. 580). Furthermore, the
frequent use of code-switching, common in many second generation bilinguals challenges the hierarchy of languages and prestige of monolingual discourses prescribed the wider society.

Another example of a community of children who challenge broader language ideologies is clearly present in the research by Paugh (2005). Adults in Dominica forbid children to speak Patwa (a French creole), instead encouraging them to speak the official language of English. However, Paugh (2005) observed that a peer group of six children between the ages of 2 and 4 code-switched and spoke in Patwa when they were not in the presence of adults. By acting out roles in the pretend play and the language associated with that role, children may be seen as reproducing language ideologies. However, their own use of Patwa could be seen as transformative, as they disobeyed the adult/child norm and incorporated multilingual practices to better “represent their multilingual world as they experience it” (Paugh, 2005, p. 66).

However, another study of a peer group demonstrated an example of youth reproducing, instead of challenging the existing social order as put forth by adults in the broader community. Evaldsson & Cekaite (2010) presents an ethnographic study of a multi-ethnic peer group of boys in which insults and negative remarks served to talk-into-being the predominant monolingualism. This reproduction of monolingual norms which in turn subordinates and marginalizes linguistic minorities is the opposite of what is seen in several other studies of multi-ethnic groups with adolescents (Jorgensen, 2005; Rampton, 1995).

2.2.3.4 Identity Construction in Code-Switching

Research has also shown that the types of code-switching used by children are indicative of their unique social identities. In Zentella’s (1997) prolific ethnographic study, she also notes that the children’s code-switching practices are representative of their unique multiple and shifting linguistic identities. While the girls in her study differ in their ability to speak, read and/or
writing Spanish or English, the overlapping networks surrounding the children provide exposure to Spanish, English and code-switching. So in this way, Zentella (1997) interprets the children’s code-switching as reflecting their “dual cultural identification” within ‘el bloque’ (p. 79).

Cheng (2003) examines the issue of identity in child code-switching departing from Gumperz (1982) personalization function and the connotations of the aforementioned ‘we code’ and as such, the children can be seen as enacting relational or interpersonal function (Halliday, 1975). In the study, sixty Malaysian children were asked to perform three different tasks: 1) recite a poem, 2) retell a story, and 3) tell their favorite story. While Cheng (2003) recounts that children use a wide variety of creative functions of code-switching, she notes examples of children who switch in order to “forge solidarity with the researcher through a common code” (p. 67). Additionally, in most cases children speaking in English during the study borrowed from both Chinese and Malay (Cheng, 2003, p. 65), perhaps an indication of their cultural and linguistic identities.

Similarly, Wei & Wu (2009) use Gumperz (1982) ‘we code’ in an analysis of how students work out their multiple identities in a ‘safe space’ for code-switching. In a complementary school in the UK with a strict One Language Only (OLON) or One Language at a Time (OLAT) policy, the bilingual Chinese-English student’s code-switching is seen as an act of identity and rebellion. Here the students’ ‘we code’ is their ability to code-switch between English and Chinese due to their high proficiency in both; and this contrasts with their complementary school teachers who have a notably lower level of English proficiency. Together, the students challenged both the teacher’s authority and traditional ways of Chinese teaching. Wei & Wu (2009) describe the students as speaking “in one voice” due to the strong group membership and social network developed in the classroom.
In contrast with the single voice developed by the students in the complementary school classroom in Wei & Wu’s (2009) study, Potowski (2004) finds quite different voices and patterns in code alternation in her study of a dual immersion classroom. Based on ethnographic data and interviews with four students and their parents, Potowski (2004) explains students’ varied language use through the concept of ‘investment’ (Norton, 2000). Norton’s (2000) framework of investment proposes that the “overriding purpose of social interaction is for people to construct and present an image of who they are” (Potowski, 2004, p. 88). Thus, students may choose to speak Spanish or English based on their desire to be a high achieving student, be popular among their classmates, be perceived as funny, or adopt a Spanish-speaking identity.

Another key difference between this and other previously mentioned studies is that while these students are bilingual, they are also L2 learners. Norton’s (2000) theory meant to be applied specifically to an SLA context suggests that language learning must “engage the identities of L2 learners” (p. 132).

Fuller (2009) analyzes the code-switching patterns of English/German bilingual children in the 4th-5th grade classrooms (9-11 years old) of a dual immersion international school in Berlin. Following both the sequential approach of Conversation Analysis (Auer, 1988, 1995; Li, 1988) and the social constructivist approach to identities as being discursively brought into being (Kroskrity, 2000), Fuller (2009) provides evidence of code-switching as structuring language and code-switching as structuring identity. In the analysis of code-switching as it structures language, Fuller (2009) demonstrates how students use English (the target language) for task-related discussion, peer-related talk, off-task talk, teasing, agreements and evaluations. Code-switching is demonstrated to structure identity as students’ code choice patterns construct fluid shifting multiple identities as German speaker, English speaker or the construction of a dual
hybrid identity. This is consistent with research on students in other bilingual programs which has shown how students construct themselves as dominant in a particular language or as bilingual (Potowski, 2004). Fuller (2009) advocates code-switching as a practice common in the bilingual world which should be allowed in the classroom (Edmondson, 2004; Liebscher-Dailey & O’Cain, 2004).

Fuller’s (2009) analysis of children in an immersion program in Germany is similar to Cashman’s (2005) study on a bilingual community’s game of Lotería (Spanish Bingo). Though different populations are examined in the study, both researchers take up a CA approach to social identities as brought into being through the sequential organization of talk. Cashman (2005) finds that individuals in the community ‘talk into being’ social structures (‘superiority of English’, ‘lack of prestige of Spanish’), social identities (‘facilitator’, ‘Chicana’) and linguistic identities (‘competent bilingual’, ‘arbiter of language’), suggesting that in this way language alternation does not only reflect but also influences social structures.

The present section has reviewed two major historical theoretical frameworks of code-switching which inform many studies on the discursive functions of code-switching, including those presented in this dissertation. Additionally, it has reviewed the literature on the functions of code-switching among simultaneous and sequential and sequential bilingual children. This research has shown context, speech community norms, and identity construction to be relevant influencing factors in the patterning of discursive functions of child code-switching.

2.3 Summary of the Findings

This chapter has reviewed relevant literature on the topics of language choice and code-switching, particularly as related to simultaneous (2L1) and sequential (L2) bilinguals. This
overview has brought to light several key points of consideration as well areas which are lacking investigation.

The review of language choice research has demonstrated the need for an ecological model of language choice which applies to a broad range of multilingual contexts. One such model will be proposed based on the concept of language as one structure among other social structures (Gafaranga, 2005) in the appended article (Appendix A). Additionally, it has been determined that very few studies have been conducted to develop a description of the communicative functions of multiple languages in the classroom. Thus, an analysis of the communicative functions of English and Spanish use in the dual immersion classroom will fill this void in the literature (Appendix B).

The review of code-switching research has served to elucidate a lack of studies on the grammatical patterns of child L2 learners in particular as well as only one study which compares 2L1 and L1 bilinguals (Potowski, 2009) and none which do so for children under 10 years old. Thus, the present study is unique in comparing the grammatical and functional patterns of 2L1 and L2 bilingual children under the age of 10 (Appendix C). Additionally, the context of the code-switch, speech community norms, and the construction of social identities through code-switching influence discursive patterns of code-switching. For this reason, the Dynamic Model of Social Structures integrates these key factors (Appendix A).

All together, these areas of innovative investigation contribute to the fields of language choice and code-switching and the disciplines of linguistics, sociolinguistics and education. It is the author’s hope that these findings will be create insight into 2L1 and L2 bilingual children which will serve to inform pedagogical decisions.
CHAPTER 3.
THE PRESENT STUDY

3.1 Introduction

As described in the preceding outline of the dissertation (see Section 1.1), this dissertation is organized according to a 3-article dissertation format, with the three articles as appendices. However, the dissertation itself was conceived of and conducted as a single cohesive research project with corresponding research questions and methodology. The present chapter outlines the research questions and research methods for the present dissertation while also presenting an extended, detailed summary of each of the three appended articles.

3.2 Research Questions

The research questions for the present dissertation were designed to respond to the gaps in the literature review (see Chapter 2) and make contributions to the related fields of linguistics, sociolinguistics and education which correspond with the interdisciplinary field of second language acquisition and teaching. The research questions follow directly below and are organized according to the appended article, which addresses the individual question most directly.

Article 1
An Ecological View of Language Choice in a Bilingual Classroom: A Dynamic Model of Social Structures (Appendix A)

1. How could the significant recurring themes of function and agency surrounding language production be integrated into a model of language choice?
2. How could this model depict language as one social structure among others (Gafaranga, 2005)?
3. How do 2L1 and L2 bilingual children enact social identities as demonstrated through the application of this model?
Article 2
What Students Do with Words: Language Choice and Communicative Function in the Spanish Immersion Classroom (Appendix B)

1. Which communicative functions of language use emerge from the data as informed by the ethnography of communication (Hymes, 1974)?
2. How do student communicative function and language use correspond to language background (HL learner/L2 learner)?
3. How are these communicative functions realized in speaker interaction?

Article 3
Does Child Code-Switching Demonstrate Communicative Competence?: A Comparison of Simultaneous and Sequential Bilinguals (Appendix C)

1. How do the grammatical patterns of code-switching among simultaneous (2L1) and sequential (L2) learners compare according to the equivalence constraint (Poplack, 1980) and grammatical category of switch-point (Zentella, 1997)?
2. How do the discursive patterns of code-switching among simultaneous (2L1) and sequential (L2) learners compare? In particular, how do students exhibit footing or alignment (Goffman, 1979) as well as other functions of code-switching observed among bilingual children (Zentella, 1997)?

A more thorough explanation of each article as well as the methods and research questions will be provided below (see Section 2.4).

3.3 Research Methods

The present dissertation project is a mixed-methods analysis of the language choice and code-switching patterns of simultaneous (2L1) and sequential (L2) bilingual children in a two-way Spanish immersion program. An overview of the general research approach, setting and participants and data collection and analysis follow.

3.3.1 Research Approach

The research approach of the present dissertation followed a mixed methods approach outlined by Zentella (1990). Historically, the field of second language acquisition has been dominated by a cognitive approach, including mostly experimental designs and neglecting naturally occurring speech (for an overview see Atkinson, 2011). Thus, the current research
approach is significant in presenting a complementary alternative to the cognitively focused research in the field. The current research integrates qualitative and quantitative methods of analysis in order to provide a more complete view of child code-switching patterns, including the context and strategy of the switch as well as the grammatical category. Most noticeably, these mixed methods include the tables and quantification of certain grammatical switch points and strategies combined qualitative analyses based on data collected during ethnographic observations.

3.3.2 Setting and Participants

The setting for the study is an independent language immersion school in Tucson, AZ with programs in French, Spanish and German at the time of the study; the school has since added a Chinese program. The organization of the program is a full immersion model from age 3 until kindergarten transitioning to a dual immersion model for students in 1st through 5th grades. In the full immersion classes, the teachers attempt to speak only the target language to the students in the classroom, while recess, lunch, and special ancillary activities such as physical education, music or art, are in the societal majority language (English). In the dual immersion classes, the day is split in half such that during half of the day the students are with a Hispanic teacher attempts to provide instruction in Spanish only and during the other half of the day students move to a different classroom with a native English speaker who provides instruction in English only. For this reason, the 1st and 2nd grade teacher are the same teacher, since half of the day this instructor teaches the 1st grade class and the other half of the day the same teacher instructs the 2nd grade class.

The primary participants of the study include 30 students from the kindergarten (4 female, 4 male), 1st grade (7 female, 4 male) and 2nd grade (5 female, 6 male) classes. Of the 30 students in the study, 24 (12 female, 12 male) are sequential (L2) bilinguals, having learned
Spanish as an L2, and 6 (4 female, 2 male) are simultaneous (2L1) bilinguals. The 2L1 bilingual children are from diverse cultural backgrounds, including two students who were born in Mexico, three who had a mother who was born in Columbia (two of these were siblings), and one who was born in Ecuador. The two Spanish instructors for the kindergarten, 1\textsuperscript{st} and 2\textsuperscript{nd} grades were Peruvian. Beyond the primary dataset consisting of classroom recordings, two Spanish immersion teachers and 8 parents of the Spanish immersion students were interviewed of the children’s language use patterns and language attitudes.

### 3.3.3 Data Collection

The primary method of data collection for the present dissertation research was through the audio-recording of spontaneous speech in the kindergarten, 1\textsuperscript{st} grade, and 2\textsuperscript{nd} grade Spanish immersion classrooms. Over the course of four years, I was involved in participant observation for over 150 hours in these classrooms, practicing close observation and offering assistance when possible. The primary dataset for the current dissertation includes 12 hours of transcribed, recorded spontaneous speech in the form of classroom audio-recordings. Several small microphones were placed at different ‘centers’ stationed around the rooms in order to record student speech; these recordings were combined and transcribed into a single transcription. Ethnographic interviews were also conducted with 20 students, 2 teachers, 8 parents and 2 administrative personnel in order to gain insight into the multiple societal factors which are influential in the children’s language choice as well as student’s language choice/language use patterns and attitudes related to the individual languages. This data set was particular useful for the exploration of language choice in the classroom and the development of a conceptual model of language choice, a Dynamic Model of Social Structures (see Appendix A).
3.4 Overview of the Articles

The following is an extended summary of each of the three appended articles. (For full analyses, results and conclusions, see Appendices A, B and C)

3.4.1 Article 1: An Ecological View of Language Choice in a Bilingual Program: A Dynamic Model of Social Structures

The first paper which forms a part of this dissertation, “An Ecological Model of Social Structures in a Bilingual Program: A Dynamic Model of Social Structures” (Appendix A), proposes and implements a model of language choice.

Throughout the history of language choice research, there are two significant recurring themes of investigation: function and agency. A variety of models of language choice that incorporate these notions in one way or another has been proposed, such as the ecological framework in the fields of language planning (Hornberger, 2002) and language learning (van Lier, 2000). Yet, these models are clearly devised for their specific individual fields: education and second language acquisition, respectively. This leaves many contexts of language choice without a suitable ecological framework. This paper, then, offers an alternative ecological model of language choice that integrates the key notions of function and agency and also offers the flexibility of a qualitative analysis while also providing the ability to apply to a wide variety of diverse settings of language contact. For example, based on preliminary investigations through a pilot study of language choice at the border of Brazil/Venezuela, such an ecological approach would be quite useful in considering how various individuals located in and across these communities enact multiple social identities. In essence, the goal for a model of language choice is to connect the various levels of language choice, in this case focusing on the function of individual language choices and the agency of surrounding societal factors. The
proposed model, the Dynamic Model of Social Structures, centers on the notion of language as a social structure (Gafaranga, 2005) among other social structures. The perspective of language itself as one of many social structures allows for an analysis of how social structures influence each other and how individuals enact social identities through their individual language choices.

In addition to a thorough description of the Dynamic Model of Social Structures, interviews with parents, students, and teachers in the Spanish immersion program inform the ensuing analysis. In these interviews, parents, students and teachers were asked about language choice patterns and language attitudes, both inside and outside of school. Additionally, the paper does rely on examples of individual linguistic behaviors from the extensive audio-recordings of spontaneous classroom speech.

The proposal of this model and its application to language choice in a bilingual program demonstrates the merits of taking the perspective that language is one social structure among others social structures (Gafaranga, 2005), a view which is able to portray language choice as an engaging, dynamic process occurring simultaneously between and within various social structures (i.e., broader society, social network, local context, and individual linguistic behaviors). The model highlights 1) how social structures influence one another and 2) how individuals enact social identities through the discursive functions of their individual language choices. The implementation of the model in an elementary Spanish immersion program exemplifies the application of this model. The present analysis based on the Dynamic Model demonstrates how individual language choices enact identities (such as that of an “experienced Spanish immersion student”, among others), how parents impact language choice, and how students and parents respond to contested language legitimacies where some acknowledge the importance of Spanish in Tucson, and others ascribe Tucson a status of a “non-Spanish speaking
place”. The analysis presented in this paper demonstrates its advantages in classroom research. Moreover, by exploring the social dynamics reflected and constructed during language choice, such an analysis is able to provide educators with important insights into the various social structures which influence the rich funds of knowledge which students bring to the classroom (Gonzalez, Moll & Amanti, 2005).

3.4.2 Article 2: What Students Do with Words: Language Choice and Communicative Function in the Spanish Immersion Classroom

The second paper which forms a part of this dissertation, “What Students Do with Words: Language Choice and Communicative Function in the Spanish Immersion Classroom” (Appendix B) explores which languages students use for particular communicative functions.

A steady increase in language immersion programs over the past 35 years has produced a rather extensive body of research, although the great majority has focused on the quantification of language use (the amount of first language versus target language use) along with the specific contexts of that use. While this aspect of language use is indeed worthy of investigation, the very interesting and important question of what students ‘do’ with their multiple languages in the classroom has been left virtually unexplored. The few studies which have probed this area have done so with regard to a single communicative function, such as language play (Broner & Tarone, 2001) or multilingual discourses (Dornyei & Layton, 2014), or with the use of self-reports of language use (Spezzini, 2010).

The present study is unique in offering an overall analysis of the communicative functions of the first language and target language in the immersion classroom. This analysis is based on a dataset of 12 hours of audio-recorded spontaneous classroom speech, collected from microphones placed at different centers throughout the rooms. The analysis is based primarily
on “communicative function” as defined by Hymes (1974) as a part of his ‘ethnography of speaking’ methodology. Thus, the present study envisions the classroom as a ‘speech community’ that includes a variety of speech styles which serve different functions. The ‘communicative function’ is the unit of analysis, and the categories of communicative functions were informed by the typology set forth by Hymes (1974), although the final categories emerged from the dataset. The set of ‘communicative functions’ for the present study include: playing, positioning, evaluating/complaining, commanding/reprimanding, thanking/apologizing, joking, requesting, requesting information, and assertions.

This study imparts several significant research findings through 1) the analysis of language use by grade level and 2) the analysis of communicative function. An analysis by grade level demonstrates several key findings. First, upper grades use more Spanish conversational turns with a high percentage of Spanish use in all grades. Also, while heritage speakers of Spanish use more Spanish in the classroom, the L2 learners continue to use more Spanish than English. The top two communicative functions of Spanish turns in the classroom are assertions (37.8%) and requests (17.0%), and the top communicative function for English turns is playing (95%). This may be expected, since students may tend to use the classroom target language (Spanish) for more academic functions and reserve the societal language for informal functions (Tarone & Swain, 1995). Interestingly, though, students use the target language, Spanish, for a wide variety of functions including evaluating/complaining (13.4%) and positioning, blaming and arguing (8.1%). These quantitative findings suggest that students in immersion programs may use the target language and first language in more nuanced ways, which contradicts Tarone & Swain (1995). This prompts several questions: Have students been taught the informal use of the target language? Has it been modeled for them? Or are they
adopting the use of academic/formal target language forms for informal functions, such as evaluating, complaining and arguing? A qualitative analysis of communicative function suggests students are in fact adopting academic target language for informal functions. Additionally, interviews with the teachers suggest that an egalitarian philosophy of teaching may lead to teachers’ use of more informal dialogue with students.

Another point of interest is the contradiction between this study’s findings and those of previous scholars (such as Tarone & Swain, 1995) and other mainly anecdotal evidence which cites the use of the target language only for academic purposes in the immersion classroom. This contradiction may be attributed to the notion of “figured or imagined worlds” (Holland et. al., 1998). The “figured worlds” construct would offer that some communicative functions, such as arguments, jokes or complaints, do not fit with our imagined or figured world of a typical classroom. For this reason, anecdotal evidence from teachers may miss or discount student use of the target language for these varied forms which are not considered relevant to the classroom. In conclusion, the study contributes a depiction of overall language choice patterns within an immersion classroom, demonstrating that students use both languages across a wide range of communicative functions in this immersion classroom.

3.4.3 Article 3: Does Child Code-Switching Demonstrate Communicative Competence?: A Comparison of Simultaneous and Sequential Bilinguals

The third paper which forms a part of this dissertation, “Does Child Code-Switching Demonstrate Communicative Competence?: A Comparison of Simultaneous and Sequential Bilinguals” (Appendix C) investigates the grammatical patterns and discursive functions of code-switching.
Many decades of research has proven that code-switching by adult balanced bilinguals is a highly sophisticated linguistic skill, characterized by shared patterns of use, grammatical switch points, and discursive functions of switching (Lipski, 1985; Pfaff, 1975; Poplack, 1980; Timm, 1975; Zentella, 1981a 1982, among others). However, the characteristics of child code-switching and code-switching by second language (L2) learners has been widely understudied and is therefore largely unknown. Studies investigating the correlation between proficiency code-switching patterns have found conflicting results with regard to types of switches, (Poplack, 1980; Nortier, 1989; Berk-Seligson, 1986; Bentahila & Davies, 1995) and whether they adhere to the grammar of both languages (Poplack, 1980; Toribio, 2001). (See Section 2.2.2 for more details.) Similarly, child code-switching research is a site of controversial findings and theories. For instance, Meisel (1994) claims that young children cannot properly code-switching and only ‘code-mix’ up until a certain point, although this may be as early as 2 or 2.5 years old. Additionally, the speech of bilingual children tends to consist largely of single word switches (Jisa, 2000; de Houwer, 1990; Lindholm & Padilla, 1978; Redlinger & Park, 1980; Saunders, 1985), and there is considerable debate as to whether these switches can be analyzed as ‘code-switching’. Furthermore, child code-switching research demonstrates that simultaneous (2L1) bilingual children switch for a variety of reasons other than to fill a lexical gap (Zentella, 1997), L2 bilingual children develop code-switching competence as their proficiency level increases (Reyes, 2004), and important pedagogical strategies employed by students in code-switching (Martínez, 2010). However, there has yet to be a study that compares the grammatical and discursive functions of 2L1 and L2 bilingual children in the classroom.

The present study establishes a unique line of inquiry within child/L2 learner code-switching research through the analysis of 12 hours of audio-recorded spontaneous classroom
speech from the Spanish immersion classroom. The analysis is based on Zentella’s (1997) framework for the analysis of grammatical and functional patterns of 6 young Puerto Rican girls in New York. The coding and analysis of the code-switching are based on Zentella’s (1997) 19 grammatical categories and 22 conversational strategies. The switches were additionally analyzed in comparison to Poplack’s (1980) ‘equivalence constraint’, which depicts the tendency she found in her study for bilinguals to switch at points that maintained the grammaticality of both sentences.

The analysis of grammatical categories provided several interesting findings. First, L2 learners switch points were more varied than 2L1 bilinguals; the L2 learners included adjective/adjectival phrases, verb phrases and imperatives as common switch points. Also, although L2 learners violated the equivalence constraint more often than 2L1 bilinguals, this rate is comparable to NYPR (2L1 bilingual) children (Zentella, 1997), meaning that all bilinguals violate this constraint to some degree and it is not unique to L2 learners only. In the analysis of discursive functions of code-switching, 18.8% of individual code-switches could be assigned to conversational strategies. It is also quite significant that L2 learners and 2L1 bilinguals code-switched for a variety of strategic purposes, including footing (for realignment and appeal) and clarification and/or emphasis. The similar grammatical patterns of code-switching, combined with its strategic uses, call for a re-evaluation of code-switching by children and L2 learners, one that includes code-switching as a resource (Ruiz, 2010) and the development of a bilingual pedagogy which incorporates multiple languages into the classroom.
CHAPTER 4.
CONCLUSION

While the preceding chapter (Chapter 3) offered details on the individual results from each appended article, it is the purpose of Chapter 4 to synthesize these results, findings, and conclusions, in order to gain an overall perspective of the insights that are gained from the present dissertation research. (For full details on the results, see the appended articles in Appendices A, B, and C.)

4.1 Summary of Results

The main findings of the dissertation research will first be summarized by each individual article, followed by a synthesis that draws these results together and proposes areas of future research.

The first article, “An Ecological Model of Social Structures in a Bilingual Program: A Dynamic Model of Social Structures” (Appendix A), proposes a Dynamic Model of Social Structures and also illustrates the implementation of this model. This analysis reveals the value of a view of language as a social structure (Gafaranga, 2005) among other social structures. This model allows for an investigation of not only how social structures influence one another and but also how individuals enact social identities through the discursive functions of their individual language choices. Specifically, the qualitative analysis of interviews with parents, teachers, and students depicts how certain students enact identities, how parents influence language choice, and how parents and student respond to contested language legitimacies. It is suggested that a Dynamic Model of Social Structures may allow instructors to understand the often hidden
influences and processes of language choice and how these contribute to students’ rich funds of knowledge (Gonzalez, Moll & Amanti, 2005).

The second article, “What Students Do with Words: Language Choice and Communicative Function in the Spanish Immersion Classroom” (Appendix B), analyses language choice patterns by grade level and the communicative functions performed by individual language choices. With regards to grade level, the analysis demonstrates an increased use of Spanish conversational turns in the upper grades and among heritage speakers of Spanish; however L2 learners of Spanish continue to use more Spanish than English. This pattern of increased use of Spanish turns counters other findings which show decreased use of the target language (Spanish) in upper grades (Broner, 2000). The analysis of communicative function reveals that the assertions (37.8%) are the top communicative function for Spanish turns, while playing is preferred (95%) for English turns. However, all students do use Spanish for a wide variety of functions, such as evaluating/complaining (13.4%) and positioning, blaming and arguing (8.1%). Previous research suggested that students in immersion classrooms would use less target language (Spanish) due to the increase in informal conversational talk with their fellow students, for which they would use their first language (English). In contrast, the students in this classroom use all languages for a variety of communicative functions. The notion of “figured or imagined worlds” (Holland et. al., 1998) may be useful to understand the wide range of functions for target language (Spanish) use in the classroom. Since some communicative functions (such as arguing, complaining) do not fit our typical idea of a classroom, or the “figured world” of the classroom, this may be the reason previous anecdotal evidence has not documented its presence in the classroom. In essence, the main contribution of this article is an
alternative picture of the language immersion classroom as one where students use the target language and the L1 across a wide range of communicative functions.

The third article, “Does Child Code-Switching Demonstrate Communicative Competence?: A Comparison of Simultaneous and Sequential Bilinguals” (Appendix C), explores the grammatical and discursive patterns of child code-switching, through a comparison of simultaneous (2L1) and sequential (L2) bilingual children. The analysis of the grammatical patterns of code-switching shows that L2 learners’ switch points were more varied and violated the equivalence constraint more often than 2L1 bilinguals. However, this rate of violation of the equivalence constraint is comparable to other 2L1 bilingual children (Zentella, 1997). The analysis of discursive functions of code-switching reveals that that L2 learners and 2L1 bilinguals code-switched for a variety of strategic purposes, not only to fill in for a lexical gap as has historically been suggested in the literature on child and L2 learner code-switching. These results suggest a re-evaluation of code-switching by 2L1 and L2 children, and recommend a move towards a viewing code-switching from a language-as-resource orientation (Ruiz, 2010) in classroom code-switching. It would even demonstrate code-switching as a beneficial pedagogical tool in the classroom (Edmonson, 2004; Liebscher & Dailey-O’Cain, 2004; Fuller, 2009), perhaps through the use of a flexible bilingual pedagogy (Creese & Blackledge, 2010, 2011).

In sum, the present dissertation research presents a model which views language as one social structure among many others (Gafaranga, 2005) and allows an integrated, multi-level, qualitative analysis of diverse contexts of language choice research. It is quite natural that these students, developing bilinguals, would make use of all their linguistic resources and in doing so, enacting multiple linguistic identities. Secondly, it demonstrates that L2 learners in a Spanish
immersion program use a high percentage of Spanish and for a wide variety of communicative functions, some rather unexpected in our ‘figured world’ (Holland et. al., 2008). So, although students may not always use only the target language in the Spanish immersion classroom, they are developing impressive communicative competence in Spanish, demonstrated by their ability to adapt Spanish for a variety of communicative goals, such as arguing or complaining. Finally, a close analysis of code-switching reveals similar grammatical patterns between 2L1 and 2L bilingual children and a variety of strategic uses by both groups. These findings in turn question the ‘lexical gap’ hypothesis (Quay, 1995) which suggests that L2 learners and bilingual children only switch to compensate for a knowledge gap. In fact, switching to compensate for a knowledge gap should be reformulated as a creative solution to reach communicative goals (as have others, Fuller, 2009, for example). This dissertation has put forth ‘cross-linguistic circumlocution’ as an alternative to the term ‘crutching’ (Zentella, 1997). The three studies which comprise this dissertation demonstrate that students in a Spanish immersion program use both Spanish and English in the classroom to enact social identities, to meet various communicative goals, and to switch between the two languages in a variety of conversationally strategic ways. So while language education has largely been dominated by the partitioning languages (Spolsky, 2004), the findings presented here suggest that there may be no reason for the common practice of the separation of languages in language learning.

This dissertation has contributed on many accounts to understanding of bilingual children’s language choice and code-switching patterns. Yet, given the wide variation in language immersion and bilingual classrooms, there is a need for other studies including 2L1 and L2 bilingual children in order to further understand these features of bilingual language development. For instance, research on other language pairs in bilingual classrooms would
demonstrate the effect of the languages involved on grammatical patterns of code-switching and other language contact phenomena. Additionally, studies in different regions of the U.S. and abroad would add insightful comparisons to the current knowledge.

Furthermore, the present study includes an analysis of a large number of students and only one day from each of the included classes. A case study on fewer students including a larger duration of the project would allow deeper insights into the code-switching and language choice patterns of individuals, given their highly individual nature (Cantone, 2007; Zentella, 1997).

Several studies indicating a link between child code-switching and proficiency level in bilingualism have either been cross-sectional (documenting different students from varying grades, as in Reyes, 2001, 2004) or small scale case studies (Potowski, 2009; Zentella, 1997, this dissertation). In order to further probe the link between proficiency and child code-switching patterns, studies would need to include longitudinal data, ideally on many students in order to compare the outcomes statistically. While this is only one form of understanding, it could be complimented with longitudinal participant observations and interview data.

Last, the Dynamic Model of Social Structures proposed here (Appendix A) exists as a conceptual model of language choice. Developing this model into an analytical model and framework would facilitate its application to language choice data. Setting forth principles and factors for several common social structures involved in the process would be a first step.

4.2 Contributions and Implications

The results and findings from the present dissertation have contributed to the interdisciplinary field of second language acquisition and teaching. The resulting contributions will be outlined organized by the related fields of linguistics, sociolinguistics and education.
Last, the implications of the dissertation’s findings for the field of second language acquisition as well as second/foreign language teaching will be reviewed.

For the field of linguistics, the present research has brought forth significant understanding on child bilingualism, especially through the comparison of simultaneous (2L1) and sequential (L2) bilingual children’s code-switching patterns. The similar grammatical switch points suggest that these groups may be quite comparable, thereby suggesting further research into the relevancy of proficiency and age as a factor in the grammatical patterns of child code-switching. Furthermore, the dissertation research provides evidence that contradicts the ‘lexical gap’ hypothesis (Quay, 1995), since 2L1 and L2 bilingual children demonstrate for a variety of discursive and strategic purposes for code-switching.

To the field of sociolinguistics, the dissertation research has contributed a model of language choice, the Dynamic Cycle of Social Structures (Appendix A) which affords a multi-level, qualitative analysis. Furthermore, the fruitful implementation of this model has demonstrated its merit as productive for research on language choice. Additionally, the dissertation research has contributed to an understanding of student language use, demonstrating that students use a high percentage of the target language (Spanish) and use the target language (Spanish) for a wide variety of communicative functions within the immersion classroom. A close analysis of the discursive patterns of code-switching has demonstrated that both simultaneous (2L1) and sequential (L2) bilingual children code-switch for a variety of strategic purposes, including some switches which address lexical retrieval issues.

Finally, for the field of education, the results and findings inform the “separations of languages debate”. Although the use of several languages in the classroom has been cited as problematic, the present dissertation research finds no grammatical or linguistic evidence to
substantiate this stance. The dissertation research, on the contrary, demonstrates that 2L1 and L2 bilingual children commonly switch between languages. Furthermore, this code-switching does not commonly violate grammatical constraints; rather, it serves important discursive functions and is used in strategic ways in conversations.

These research findings recommend two important implications for second/foreign language acquisition as well as second/foreign language teaching: 1) a reconceptualization and re-phrasing of classroom code-switching and language alternation terminology and 2) a flexible bilingual pedagogy (Creese & Blackledge, 2010).

First, classroom code-switching and language alternation has commonly been treated with disdain, as a deviant linguistic practice in the classroom. Part of this is inherent in the terminology. Researchers such as García (2010) have suggested that code-switching after many years carries a social stigma, so they prefer to use the term ‘translanguaging’ to describe the multiple and mixed language practices that creatively draw from linguistic and cultural systems in innovative combinations and reflect the transitional hybrid communities where individuals perform these languaging acts. While translanguaging includes code-switching, it includes various language alternation phenomena. In order to connect these research findings with their relevant fields, the appended articles in the present dissertation use the more common term ‘code-switching’. The term ‘translanguaging’ may provide a powerful, more positive alternative in contexts where researchers and teachers could use it to elevate this often stigmatized linguistic practice, although this incorporates other language contact phenomena beyond code-switching.

Additionally, terminology surrounding code-switching often conveys a deficit perspective. For instance, Zentella’s (1997) term ‘crutch-like’ code-switching (Zentella, 1997) insinuates and perpetuates a negative, deficit perspective of this linguistic practice. However,
every language user (L1 or L2) has memory lapses, and there is no one who has an infinite vocabulary. Instead, the present dissertation posits that students who code-switch based on a knowledge gap are actually using their knowledge of two languages in a very skillful way to circumnavigate words that they may have forgotten or not yet learned. For this reason, the present dissertation research calls for a reconceptualization of these types of code-switches as “cross-linguistic circumlocution” (See Appendix C for further elaboration).

Finally, the research findings demonstrate the potential linguistic, sociolinguistic and educational value of code-switching and language alternation in the classroom as a strategic tool used by 2L1 and L2 bilingual children for various purposes. While many language programs are characterized by a strong separation of languages, language immersion programs may be especially so (Lee, Bonnet-Hill, & Gillespie, 2010). Rather than partitioning languages (Spolsky, 2004), the findings of this dissertation advocate a flexible bilingual pedagogy as presented by Creese & Blackledge (2010) in which “the boundaries between languages become permeable” (p. 112). In essence, this pedagogic approach allows for code-switching and language alternation, or translanguaging, as a site for language learning and teaching and recognizes this linguistics practice as a resource (Ruiz, 2010).


APPENDIX A. AN ECOLOGICAL VIEW OF LANGUAGE CHOICE IN A BILINGUAL PROGRAM: A DYNAMIC MODEL OF SOCIAL STRUCTURES

A previous version of this paper was published in *Working Papers of Educational Linguistics*.
An Ecological View of Language Choice in a Bilingual Program: A Dynamic Model of Social Structures

Abstract. The present paper proposes a Dynamic Model of Social Structures as a model of language choice which highlights and synthesizes two significant themes repeated throughout the history of language choice research: agency and function. The model stems from ecological frameworks advanced in the fields of language planning (Hornberger, 2002) and language learning (Lam 2010), central to the model is the notion of language as a social structure (Gafaranga, 2005) among infinite other social structures (such as broader society, social network, local context, and individual linguistic behaviors). The Dynamic Model of Social Structures integrates the concept of agency and function in demonstrating 1) how social structures influence one another and 2) how individuals enact social identities through the discursive functions of their individual language choices. Research from a primary school Spanish immersion program in Arizona illustrates the application of this model and its value as a framework especially suited for classroom language choice research.

Introduction

Upon entering school for the first time, all students are surrounded by a new social language (Gee, 2010) consisting of different vocabulary, routines and academic ways of speaking; however, certain students must also learn a language different from the language(s) which they acquired from birth. In addition to learning the social language of school, these students must acquire a new language and determine which language to speak, where, when and with whom. How do students negotiate a new language variety in their linguistic repertoire?
During an interview, a student in a Spanish immersion program, in which all academic content is taught in Spanish, provided his explanation below:

**DAVID:** Like, sometimes a friend speaks English, and then I speak English, and then like we have a conversation in English. And the teacher’s like “Hey, this is Spanish class, not English class!”

Despite its brevity, this comment is extremely insightful. A fourth-grader in his third year in the Spanish immersion program, David acknowledges the differences between practice and classroom policy, noting how another student’s language choice influences his own, despite the established rules of language use at the school. Furthermore, David acknowledges various external factors which are agents in his linguistic decision-making, including the influence of social network (*a friend*), interlocutor language (*speaks in English*), setting (*Spanish class*), and instructor (*and the teacher’s like...*). David’s self-analytical remark refers to the local context, but how do these individual language choices relate to the broader macro-societal level of language choice?

This paper proposes an ecological model of language choice as a productive framework of analysis to bridge the gap between individual language choices and societal influence. First, an overview of the predominant theories of language choice serves to demonstrate the value of the ecology of language metaphor as set forth by Haugen (1972) and elaborated by Hornberger (2002). Then, the paper turns to a description of how these principles can be applied to a Dynamic Model of Social Structures. Finally, the analysis of student language choice inside and outside of the Spanish immersion classroom further illustrates the application of this model.

**Language Choice**

The study of language choice is remarkably complex, partly due to its multiple and varied definitions. Lam (2010) points out that the term “can conjure up a host of phenomena ranging
from language planning made by the state to individual language choices made by language learners or users” (p. 68). The expanding literature examines a wide variety of influences, from broader societal factors such as globalization (Kemppainen & Ferrin, 2002) to localized agents such as parents (Roy-Campbell, 2001) and diverse family situations (Mills, 2001; Okita, 2002; Piller, 2001; Yoon, 2008).

Furthermore, while the concept of language choice is perceived as intelligible, the field lacks a clear definition by which to differentiate language choice from related topics such as code-switching. Some clarity may be gleaned from the history of the field, when the central questions were framed as “who speaks what language to whom and when” (Fishman, 1965). As this phrase suggests, early analyses sought to generate predictive models to determine which language would most likely be used in a certain context (Ferguson, 1959; Fishman, 1965). Although now considered overly simplistic to describe diverse, multilingual contexts, Ferguson (1959) and Fishman (1965) made a significant contribution in connecting context and individual linguistic behaviors. So, even early research lent itself to Wei’s (1994) categorization of language choice as existing on several levels: the macro-societal level, including the larger context, and the micro-interactional level, including individual linguistic choices. In these terms, language alternation phenomena such as code-switching, borrowing, congruence and transfer would be included on the micro-interactional level, as one aspect or level of the study of language choice. Yet, important throughout the literature on language choice is the intent to bridge both levels and explore the connections between micro and macro.

A review of the language choice literature reveals two significant repeated themes which capture important aspects of the macro-societal and micro-interactional: function and agency. The concept of agency in language choice research is rooted in the macro-societal level,
particularly those studies which analyze the direct impact of institutional and ideological powers on the national level. In Spain, for example, numerous studies recount the impact of political forces, ascribed status and societal values and attitudes on language choice decisions between the majority language, Castilian, and Valencian (Casenoves & Sankoff, 2004) or Galician (Loureiro-Rodriguez, 2009). More recently, Lam’s (2010) multi-agentive model connects individual language choice and broader state level decisions, through the identification of stakeholders at various levels of language education as agents, including policy-makers, educators, family members, learners, and other language users.

Furthermore, while research on language choice in language immersion programs ranges from preschool to post-secondary settings, the tenor of the analyses has changed over the years. The earliest research analyzed ‘language use’ in terms of systematic and consistent choices based on certain functional factors, such as topic (Moffatt, 1991), grade level (Blanco-Iglesias et. al, 1995), register (Heller, 1996), task (Broner, 2000), and gender differences (Jorgensen, 2003). This perspective posits that language choice depends on both environmental factors and individual functional needs or desires (such as identification).

![Figure 1.](image)

This differs from the one-to-one causal, stimulus-response situation it is often purported to be.

While linguistic and external factors may influence student choice, individuals make use of the
language in a way that suits their functions, needs or desires. However, this perspective grants too little agency by representing the speaker as almost purely responsive, and at the same time too much agency by omitting other external forces.

In response, the trend of later studies moved towards the concept of agency. In contrast with the functional perspective, this framework emphasizes that various agents impact language choices. Relatively few studies on immersion programs have utilized this framework, notable exceptions include a study on ascribed status and politics (Cassenoves & Sankoff, 2004) and another on language attitudes and values (Loureiro-Rodriguez, 2009). Additionally, Lam (2010) critiques existing agentive perspectives in language choice for the narrowness of the analysis. Instead, he calls for a multi-agentive perspective which accounts for the many forces simultaneously influencing individual language choice, such as school, parents, teachers, and individual, a model which may be display as follows:

Figure 2.

![Diagram of Language Choice](image)

The agency of the individual and that of external macrolevel forces is indeed a significant contribution to studies in this field. But, what has happened to the linguistic and environmental ‘functional’ factors? In adopting this model and rejecting the other, we risk “throwing the baby out with the bathwater” and losing the benefits of historically significant functional approaches.
Instead, there is a need for an alternative perspective, one that includes elements of functional and multi-agentive perspectives. Hornberger (2002) explains the three elements of ecology of language (Haugen, 1972) as applicable to research in the following manner: *language evolution* as the study and description of multilingual interaction, *language environment* as the interrelationships between the speakers, interlocuters and other factors in the environment, and *counteracting language endangerment or language maintenance* as the ultimate goal of discovering language choice and language policy. Such a dynamic and multilayered model may appear as depicted below.

Figure 3.

*Counteracting Language Endangerment or Promoting Language Maintenance*

Compared to the previous models, this option certainly appears complex, but that is part of its import. Instead of oversimplifying the choices made at either a micro or macro-level, an ecological perspective embraces the complicated decision determined through the interrelationships between and through multiple factors on various levels simultaneously. Such interactions and connections are at the heart of this approach, and they are symbolized by the
double-sided arrows. These arrows, however, are only symbolic, because in reality there should be an arrow connecting each factor to the next. For example, parents are agents that affect not only topic-based choices but which register students use with which interlocuters in which language(s). Furthermore, parents are connected to the policy of the school, the teachers, and embedded in the particular constructs of society.

The model of the ecological perspective as well as its accompanying conceptual framework differs significantly from those previously mentioned. For this reason, it is often difficult to identify language choice research within this perspective. The paradigm shift was accompanied with a shift in terminology. Instead of investigating “language choice” as a monolithic, Spanish or English decision, Hornberger’s continua of biliteracy (2002) emphasizes the complicated, intricate multiple intersections of literacies and languages. While this clear break in vocabulary and concepts has proved extremely useful, it must remain a part of the language choice research continuum in order to most benefit the field. Research formed from the ecological framework includes analyses of two-way immersion classrooms (Jeon, 2003), bilingual classrooms (Cahnman, 2003; Basu, 2003), and ESL programs (Hardman, 2003). Missing from this research, however, are studies of language choice in immersion programs. While this perspective was meant for both multicultural and multilingual societies, it could quite successfully be applied to immersion programs which are indeed multilingual and often multicultural, depending on the specific demographics of the school. Particularly significant in education is the third portion of this model which emphasizes the application of what is learned through study to the maintenance of language diversity or language learning. The following section will explore the basic principles of the ecology of language metaphor, a conceptual
framework which offers a vantage point from which to explore the interrelationships among functional and agentive levels of analysis.

**The Ecology of Language Metaphor**

Although a few works referenced the ideas of ecology and language as early as the 1950’s (Trim, 1959; Voegelin & Voegelin, 1964), Haugen (1972) is most often credited with bringing the ecology of language into mainstream. Based on the definition of ecology as “the branch of biology that embraces the interrelationships between plants and animals in their complete environment” (Park, 1966, p. 912), Haugen extended the notion of studying interrelationships to formulate language ecology as “the study of interactions between any given language and its environment” (1972, p. 325). Furthermore, Haugen (1972) conceptualized the environment of language as psychological (“its interaction with other languages in the minds of bi- and multilingual speakers”) and sociological (“its interaction with the society in which it functions as a medium of communication”) (p. 325). A later critique by Mühlhäusler (1996) argues for a shift from “given”, countable languages (p. 8-9) towards more general communication and a focus on “the functional relationship between the factors that affect the general interrelationship between languages” (p. 313). Common throughout each of these definitions is the word “inter-relationship”; an ecological approach is in essence about studying inter-relationships and thereby lends itself well to the multiple levels of language choice research. In order to better understand the implications of the ecology of language metaphor, two ecological models will be reviewed below.

Hornberger (2002) expands on three elements of language ecology, from Haugen’s (1972) original writings, as applicable to research in the following manner: *language evolution* as the study and description of multilingual interaction, *language environment* as the
interrelationships between the speakers, interlocutors and other factors in the environment, and *counteracting language endangerment* or *language maintenance* as the ultimate goal of discovering language choice and language policy. Based on this understanding, Hornberger (2002) developed the influential theory of the continua of biliteracy accompanied by a shift in terminology. For example, instead of investigating language choice as a monolithic, Spanish or English decision, Hornberger’s continua of biliteracy (2002) emphasizes the complicated, intricate multiple intersections of literacies and languages. Due to Hornberger’s (2002) field and the specifics of the theory, the research formed from the continua of biliteracy framework (Basu, 2003; Cahnman, 2003; Hardman, 2003; Jeon, 2003) is strongly rooted in the field of language planning and language policy, where the concepts of language maintenance and language endangerment are logically key concerns.

In the field of language learning, van Lier (2000) put forth an ecological view as a way to question the assumption that interaction and context relate to learning in indirect ways. Instead, he argues that from an ecological standpoint, activity and (non)verbal interaction are central to understanding learning. For van Lier (2000) the learner is immersed in an environment full of potential meanings where language is a metaphorical jungle and speakers need to know “how to use it and live in it” (p. 251), an idea highly reminiscent of situated learning (Lave & Wenger, 1991).

These highly influential ecolinguistic approaches have proven fruitful in advancing their respective fields with the goals of language maintenance in the field of language planning and policy (Hornberger, 2002) and teacher training in second language acquisition and pedagogy (van Lier, 2000). However, they are designed very specifically for their fields. Since the field of language contact encompasses many varied multilingual situations, an ecological model general
enough to apply to diverse settings in need. The next section will propose the Dynamic Model of Social Structures as one such model and review the advantages it offers in its application to language choice research.

**Contributions of the Dynamic Model of Social Structures as an Ecological Model of Language Choice**

Sociolinguistics is, by nature, intrinsically concerned with the problem of how to relate language and society. While this exploration is a noteworthy aim, Cameron (1990) points out that research on language choice has been largely dominated by a “language-reflects-society” perspective which she critiques first for its reliance on “naïve and simplistic social theory”, and secondly for its implication that “social structures somehow exist before language, which simply reflects” or “expresses” the more fundamental categories of the social” (p.57). Following Cameron (1990), Gafaranga (2005) suggests that another problem with the “language-reflects-society” perspective is “what counts as language” and “what counts as society”, since society is formed of “an indefinite number of social structures” (p. 289). Instead, Gafaranga (2005) argues that language choice is an aspect of talk organization from which “what counts as language” and “what counts as social structure” may be derived in ”language-defined-social structure”(p.292). Gafaranga’s (2005) valuable contributions include the view of language choice as a social activity and language itself as a social structure. However, while Gafaranga (2005) indeed advances the “de-mythologising” of language alternation studies, as his title claims, he de-emphasizes the influence, or agency, of social structures on other social structures.

It is precisely at this point that the ecology of language metaphor could provide a beneficial perspective from which to view the situation. Let us take, for example, the water cycle. Various forms of water (groundwater, rain, clouds) all influence one another (through
precipitation, evaporation, condensation) in a continuous, simultaneous flow. In other words, each form of water influences the other as it takes part in this dynamic, continuous cycle. A dynamic view of language choice, then, emphasizes the constant movement and influence of various social structures upon one another. Just as we would not argue that groundwater is evaporated into the air or water in the atmosphere is incorporated into groundwater, the question of the realm of influence of language and society is not “either/or” but “both/and”. As Garner (2004) explains, linguistic ecologies “shape and are shaped by social interaction” (p. 40). Based on this ecology of language metaphor, I have developed the following model, a Dynamic Model for Social Structures (Figure 1).

Figure 1. The Dynamic Model of Social Structures: An Ecological Model of Language Choice

Figure 1 presents a diagram of the Dynamic Model of Social Structures, an ecological perspective of language choice. As a conceptual model, the social structures in each of the circles are examples only, and do not include the infinite social structures. In the context of language choice, “individual behaviors” would include linguistic aspects of conversation, such as
topic, tone, hesitations, or specific language alternation behaviors (borrowing, code-switching, and interference); however, it may also include non-verbal behaviors, gesture, movement, expressions, etc. “Social networks” refers to the smaller-scale communities which one is involved in, such as family, school, peers, neighbors, religious communities and other groups. The “broader society” refers to such social structures as mass media, language policy, industry, and social services. The last example, “immediate context”, includes such characteristics as the physical environment and materials (small classroom), the context of the setting (in the middle of a lecture, small group work), languages involved in the local context, interlocutors (including the individual) and others present.

The Dynamic Model of Social Structures stands to make several important contributions as a complement to other ecological models and the field of language choice. As an ecological model, it accentuates the inter-relationships between the levels of social structures involved in issues of language choice, such as the micro-interactional and macro-societal (Wei, 1994). Furthermore, it extends current ecological models by presenting those relationships as dynamic and simultaneous through processes which are continuously moving without a fixed beginning or end. Additionally, whereas Hornberger (2002) and van Lier (2000) apply their ecological models to the specific fields of language planning and policy and language learning respectively, the Dynamic Model is well suited to the more general study of language choice. On another note, the model presented here responds to the persistent question which permeates sociolinguistics and language choice research - how to relate language and society - and it does so by recognizing language as one social structure among many other social structures.

In essence, the Dynamic Model of Social Structures highlights how various social structures simultaneously influence one another and secondly, how individuals enact certain
social identities through the discursive functions of their individual behaviors. In doing so, the model accentuates and synthesizes two significant, repeated themes throughout the history of language choice research: agency and function. First, the social structures as well as the individuals and groups within social structures are the multiple agents which influence language choice. Secondly, the Dynamic Model provides a conceptual model from which to analyze the functions of language choice. Furthermore, these discursive functions are inherently intertwined with social identity, since following Widdicombe (1998), social identity is not envisioned as something people are but rather “something they do” (p. 191). From this standpoint individual verbal and non-verbal behaviors (i.e., language choice) serve certain functions in order to enact certain social and linguistic identities. Another notable feature of the Dynamic Model is that of power, as it has important implications in terms of agency, discursive function and identity. The power ascribed to an individual, or a group or social structure, impacts that individual’s degree of agency as well as the identities that individual enacts through certain discursive functions of linguistic behaviors.

The rest of the paper serves to illustrate how the Dynamic Model of Social Structures could be applied to research in a primary school Spanish immersion program in Arizona. Consistent with the ecological approach, this paper analyzes language negotiation inside and outside of school.

**Methods**

The context of the present study is an independent primary language immersion school in Tucson, AZ which currently offers Chinese, Spanish, German and French immersion classes for students from preschool (age 3) through 5th grade. The preschool and kindergarten classrooms
are described as full immersion, meaning that theoretically students spend the entire day with a
teacher who speaks only the appropriate target language and the students speak only that target
language throughout the day as well. First through fifth graders participate in a dual-immersion
program in which students spend half of the day in an English classroom speaking English with
the teacher and students, and the rest of the day speaking a different target language with the
same students and a different teacher who speaks that target language. As a non-profit
independent school, parents are charged tuition for enrollment. This understandably impacts the
demographic situation of the student population, although 30% of IST students received
scholarship assistance in the 2009/2010 school year,

The present study presents data from kindergarten, first grade and second grade students
in the Spanish immersion program, including 9, 11 and 11 students respectively. The
kindergartners were with one teacher, Sra. Castro, for the entire day, and the first and second
graders spent half of their day with Sra. Alvarez; both teachers are natives of Peru. Although
the first and second grade students spend half of their day in English classes, the present study
focuses on language use in the Spanish immersion class only. In total, the participants of the
study include 31 students, two teachers, and three parents. Out of these 31 students, 23 are non-
native speakers who did not acquire Spanish at birth, while the remaining students are native
speakers who have been exposed to Spanish since birth. This is an important distinction,
because there are eight students for whom Spanish is not a foreign language. Instead, the
Spanish immersion class reinforces a language they speak at home.

During the 2009/2010 school year, preliminary observations included all classes,
‘specials’ such as music, as well as lunch and recess time. Based on these observations, the
kindergarten, first and second grade Spanish immersion classrooms were chosen as a focus set,
since this was the space where students frequently made varied linguistic choices. The present analysis is based primarily on 12 hours of transcribed audio-recordings of classroom time. Additionally, students, parents, and teachers were interviewed on language use and language attitudes, amounting to 3.75 hours of transcribed interviews. Short interviews with the students and teachers were conducted at the school while the parent interviews were conducted over the phone. The interviews were in the format of ethnographic interviews, in which broad questions about language use were outlined in advance, but other related questions may be addressed based on the participants’ responses during the interview.

The audio-recorded data was transcribed and coded for language (English, Spanish, code-switching). The unit of analysis was a turn of speech (Ellis, 1994; Levinson, 1983), defined as any time an interlocutor stopped talking or was interrupted by another interlocutor’s turn. Second, student turns were coded for communicative function, using categories which were meaningful based on the present data set (playing, positioning, evaluating and complaining, commanding and reprimanding, and politeness). Since traditional functional analyses tend to favor a systematic one-turn, one-function analysis, care was taken during the coding process to recognize that single utterances simultaneously serve multiple functions. Additionally, the transcripts were coded for Spanish immersion student identities which emerged from the observations, audio-recordings, and interviews, such as an experienced Spanish immersion student or an aspiring Spanish immersion student. Examples of these analyses follow. Finally, student, parent and teacher interviews were analyzed based on the concept of agency in order to determine important influencing social structures in the negotiation of student language choices.

Analysis
While the Dynamic Model of Social Structures emphasizes the interrelationships between social structures, the analysis of the present research benefits from being organized in three distinct sections. First, an analysis of individual linguistic behaviors and their communicative functions provides insight into how students enact social identities through their language choices. Second, the agency of three notable influencing factors of language choice are analyzed, including school policy, parents and individual language choices. Last, the interrelationships between social structures are analyzed based on the concept of language legitimacy at the level of the school community and the Tucson community.

**Functions of Individual Linguistic Behaviors**

While traditional analyses of communicative function tend to favor the single categorization of utterances according to only one function, the Dynamic Model of Social Structures recognizes that language serves multiple functions simultaneously. For this reason, the data was carefully analyzed with a heightened awareness of this tendency and an attempt to consider multiple discursive functions of turns where appropriate, especially through the use of ethnographic methods and detailed knowledge of the classroom contexts. Below is an explanation of how one conversational turn of talk may serve multiple discursive functions.

STEPHEN: ¿Sra, donde está la cara triste? La cara triste face. [Motions around face]

*Mrs., where is the sad face? The sad face face.*

From a traditional communicative functional perspective, Stephen’s comment may at first seem to function as a request for information. Indeed, it does serve that purpose; however, knowledge of the context adds additional layers of meaning. The “sad face” mentioned here is a behavior management tool used by Mrs. Castro. In the classroom, when students are speaking English,
they receive the sad face, which is a construction paper circle with a symbolic image of a frown. So, Stephen also appears to be “blaming” one of his fellow students for speaking English. Additionally, this turn may also be a “complaint” that the student hasn’t been punished. Another possible interpretation is a “reprimand” to the English-speaking student.

While the identification of discursive functions of student linguistic behaviors is interesting, the Dynamic Model of Social Structures does not end there. Instead, it aims to interpret how students enact social identities based on the communicative function of individual linguistic behaviors. In the above example, it is important to note that Stephen is a 5-year-old kindergartener who has been involved in the Spanish program since he was 3-years-old, a full year longer than all the other students in his class. Based on this information, Stephen seems to be placing himself in a position of power, enacting the identity of the experienced Spanish immersion student.

Sra. Alvarez further validates “experienced Spanish immersion student” as one of Stephen’s enacted identities during her interview in comparing Stephen with Ben, who has only been at the school for one year.


Sometimes Ben uses more [Spanish] than Stephen. This is the difference between the two. If you ask them in Spanish, they’ll answer you. But Stephen, you’ll see changes very quickly, even though he’s been here for 3 years. He doesn’t want to make the effort sometimes. But Ben likes to show that he knows.
In the above example, it appears that Stephen enacts an identity of an experienced Spanish student, since he is the only student in his class who has been in the program for three years is by challenging the established classroom language policy. Other students who wish to gain access to the group or in-group status as “experienced Spanish immersion students”, like Ben, seek to follow the rules in order to gain in-group status and gain favor with the educators.

The analysis of communicative functions has often been critiqued for its limits in terms of recognizing the plurality and simultaneity of functions; however as the above example shows, it does not need to be this way. In fact, more thorough accounts of communicative function afford a valuable insight into the variable and multiple uses of language. On another topic, this same example provides one example of an individual Spanish immersion student’s agency, as Stephen’s linguistic decisions aim to influence his peer’s decisions and his teacher’s actions.

### Agency of Social Structures

The Dynamic Model of Social Structures demonstrates the simultaneous and multi-directional influence of one social structure on other social structures. For instance, the images of government officials making language planning decisions, parents talking with their children at dinner time, and kids laughing and chatting on the playground certainly may upon first consideration seem worlds apart. However, in each instance, there are overlapping layers of agency. For instance, the government officials take into consideration public opinion and popular parental consensus. Parents may consider the current government policy in determining which language to speak at home. And even children on the playground may pay attention to the school policy or choose to disregard it. The Dynamic Model of Social Structures seeks to
connect these often disconnected agents in order to add an overarching view of how social structures are agents which simultaneously influence one another.

In interviews with teachers, parents and students, evidence for the following agents emerged: school policy makers, parents, educators, learners, competent language users, and society. Three of the most prominent agents will be discussed here: a) school policy makers, b) parents, and c) learners.

**School policy as an agent.** Policy makers may be the most obvious agent in the process of language choice within the Spanish immersion classroom. When rules are set, students are expected to follow them. In the interviews, all students iterated the influence of school policy as an agent influencing their individual language choices, through the recitation of rules and categorization of certain choices as accidents or mistakes. Below two students recite school rules about language choice on the playground versus the classroom.

**VICTOR:** But inside I **had to** speak in Spanish. Out here [playground] you **can** speak um, any language.

**CHARLES:** Whenever we’re outside we just speak English… And **we have to** speak Spanish, period, in our class.

Important to note here is the difference as well as the similarity between Victor and Charles’ responses. Although both have been at the school for three years, Victor is in kindergarten in a separate building, while Charles is a second grader. As well as denoting age, the two buildings mark the difference between the full immersion in the early grades and the dual immersion, split morning and afternoon, in the older grades. Both boys are keen observers of their own environments. As Victor states, it is much more common for the younger children in the preschool/kindergarten building to speak a variety of languages on the playground. In the older
grades, it is almost strictly English on the playground and during lunch time. In both statements, the modal phrase “have to” is used in accordance with the Spanish class, signifying a stronger obligation that comes from the school policy. However, in terms of the playground, Victor portrays language choice as an individual option, “you can”, while Charles uses terminology that represents solidarity in a decision constructed among classmates, “we just”. These students explicitly reviewed school policy with me through the recitation of rules; but, it is often expressed in interviews through more implicit means, as in the following examples.

     CYNTHIA: It’s okay if I speak Spanish at my house. It’s because my mom wants me to learn more.

     RESEARCHER: When would you speak in Spanish to him [your brother]?
     HEIDI: Well, well like, when, well sometimes if like, well I know some ordinary time I do. Sometimes I do when I’m supposed to. Sometimes I do, just an ordinary time.

After Cynthia had mentioned accidentally using English in Spanish class, I asked her whether anything similar happened at home. She noted that “it’s ok” if she speaks both languages at her home, recognizing the difference between areas with a strict policy and those without. Since Cynthia’s family does not use Spanish as a home language, either language is acceptable at home, which is different from the school’s language policy. Heidi, on the other hand, does speak Spanish as a home language with her family. Their family follows the traditional one parent, one language model. Since her brother is also in the Spanish immersion program, both siblings are capable of speaking to each other in Spanish. However, Heidi similarly notes that at times she’s “supposed to” speak to her brother in Spanish, but other times are expressed as “ordinary times” when it doesn’t matter. Students clearly recognize that the school policy does not hold to every
context, and neither does a home language policy. Another more explicit example of school policy and its influence upon students is through the mention of accidents or mistakes in speaking, which was frequent throughout the interviews.

CYNTHIA: Sometimes by accident I say English words.

ALISON: Sometimes I speak Spanish on accident.

LYDIA: Usually some well maybe sometimes well like sometimes when it’s lunch I like usually say in Spanish instead of English words… maybe by mistake. Just kind of feel like I want to speak Spanish like the entire day.

LAURA: Uh, sometimes I forget [to speak English] when I talk to my friends.

While all four students mention the ‘accidental’ nature of the language choice, their comments are slightly different. Cynthia mentions speaking English on accident which is far more common and expected than Alison’s experience of speaking Spanish on accident. Typically, the first language would be arguably more readily accessible; however the present example may portray issues of access or language selection which may be due to lapses in attention. Additionally, different motivations are evident. Lydia expresses that her ‘mistake’ was motivated by a desire to speak Spanish ‘the entire day.’ As a second grade student who began in a full immersion program for her first three years, this desire may not be completely surprising. Laura, on the other hand, mentions forgetting to speak Spanish based on the interlocutor, as did David in the introductory example. This corresponds with an analysis of the percentage of student turns-of-talk, classified by language, from the total transcript. Students were found to speak Spanish or code-switch with each other 50.4% of the time, which is significantly different from their responses to the teacher which constitute of 82.9% Spanish and code-switching. Since the
educators are the ones most often in charge of enforcing the school policy, it would appear likely that students may “forget” more often when in conversation with their peers.

**Parents as agents.** School policy, however, is not the only factor in determining student choice; parents play an important role in student language use.

*Home Language*

BRIANA: Um, we used to actually have a **game** where we would you know every time we would catch ourselves speaking En-Spanish we would get a **point**. And when we would start speaking English, we would take points away. And actually when I was at the store I just um picked up the supplies to continue to play that game, because it was, it was, it worked.

SRA. A: Entonces, el idioma español es mucho más fácil para ella porque lo hablan en casa. Laura, le recuerdo que su mamá es Columbiana. Así que tiene mucho más facilidad.

MRS. A: **So, the language is easier for them, because they speak it at home.** Laura, remember that her mom is Columbian. So she has much more ease.

Briana is the mother of two children, and they speak Spanish at home, just as Briana did as a child. While her husband’s family is from Mexico, his parents never spoke Spanish to him or his brothers. Briana deems the encouragement of the home language to be so important that she has reinforced it with a game. The attribution of points to the language of preference correlates with several recent theories of linguistic economy (Shenk, 2007). In an overt way, Briana is choosing to reward her children for speaking the language she wishes them to maintain.

In the following example, a teacher (Sra. A.) recognizes the ease with which students who have Spanish as a home language speak. This again correlates with the data that on average 20.3% of Spanish spoken in each class comes from native speakers.

Though some parents do not reinforce Spanish through speaking it at home, all students interviewed alluded to the reinforcement of Spanish outside of school. This is especially
interesting, since the director claims that the school does not explicitly encourage this, and the faculty, “assume no language exposure outside of school.” The chart in Figure 2 displays the uses for which ten non-native Spanish speaking students reported that they used Spanish outside of school. Most commonly, the students converse with relatives or others in the community.

Figure 2. Parents as Agents: Student Use of Spanish Outside of School

However, evidence for parent reinforcement of Spanish language skills extends beyond these responses to comments made by parents as well as students themselves. Although parents may not be talking in Spanish to their students, they strongly convey the value of language.

TRACEY: And we were talking about this very issue of you know sometimes when people, especially that immigrate to the United States, you lose that language. So, you know, she [Lydia] knows that sometimes it’s a choice of learning or losing a language.

Tracey’s daughter speaks Russian as a home language, and here Tracey comments on a conversation she had with her daughter about language loss. She reported this conversation without specific prompting from any certain question. Tracey emphasizes the importance of this issue and equates language choice with language loss choice. Since “loss” implies deficiency and a “lack”, such a comment is evidently highly value-laden. As this example shows, parents
communicate their values of language through simple conversations. Below is an example from a student interview which expresses how students understand and acknowledge parents’ view of language.

DAVID: Um, yes sometimes. We like tell each other like different stuff, and then my parents are like “What are you saying?” And my parents like want to start learning Spanish, so we like teach them some words.

Another way that parents relay the value of languages to their children is expressing their desire to learn Spanish. In fact, from all of the interviews, three out of six students described their parents as expressing an interest in learning Spanish. Of these, two have taken Spanish courses or are currently taking courses in Spanish, which includes another investment of time and possibly money, attributing value to the Spanish language. As the above example shows, David’s parents have apparently expressed that desire to him by encouraging him and his sister to teach them some words. This example further demonstrates that knowledge of Spanish is not required for parents to be agents which influence and encourage Spanish language learning. Just as David’s parents do not speak Spanish, the excerpt below, from an interview with Stephen, demonstrates how his non-Spanish speaking parents relay a general appreciation for languages.

STEPHEN: [excitedly] My dad knows how to count to five in Russian!

Here Stephen comments excitedly on his parents’ ability to speak different languages, as other students did in the interviews. Even five words in Russian seems an excellent accomplishment to Stephen. While this seems like a simple statement, there is much taking place here. Stephen evidently knows this about his father and is very excited about this language knowledge. Through his interaction with his father, Stephen has understood that knowledge of language is an
accomplishment to be proud of. Furthermore, though Stephen’s parents speak very little Spanish, they are evidently expressing their value for language very clearly.

**Individual language choices as agents.** One significant aspect of the Dynamic Model of Social Structures is that language is identified as a social structure itself, and the individual language choice behaviors are themselves agents which influence other social structures. The following examples depict individual language choices which resist existing policies of language choice and construct alternative opportunities for language use.

> LAURA: But, but, she [the teacher] always warns us, but sometimes we still speak English and we don’t get time off [short giggle]

Interestingly, while some students label the use of English in Spanish class as an accident, both Betty and Laura acknowledge it as intentional at times. Instead of remorse, these students laugh, expressing the humor of getting away with something which isn’t permitted. The “time off” to which Laura refers is the consequence for speaking English in the Spanish immersion classroom. If caught speaking English, students need to wait in the classroom for a certain amount of minutes before going out to recess. Laura recognizes that sometimes when students speak English, they don’t have to suffer the consequence. The students resist the established school policy by challenging the rules and avoiding the consequences. While this provides an example of individual linguistic behaviors in the classroom, students also described individual behaviors in which they resisted suggested language use at home, as seen below.

> CHARLES: Mm. [I] pretty much never [watch movies in Spanish], cuz there is this movie called Kung Fu Panda. In Spanish, it’s **horribly boring**. In English, it’s **awesomely funny**.

> LYDIA: I have some Spanish books. [pause] **I have no idea where they are.**
Although some parents make Spanish materials such as games, books and movies available, Charles and Lydia demonstrate the problem with these attempts to integrate Spanish into the children’s home lives. The Spanish immersion students’ individual behaviors are often based on their interest. Charles comments that a single movie while “horribly boring” in Spanish is “awesomely funny” in English. Interestingly, this may be influenced by his experience at school, which provides much academic language but arguably less informal slang phrases which may be imbedded in children’s movies which are meant for entertainment. However, Charles still resists his parents’ efforts to encourage Spanish language during entertainment. Similarly, Lydia has been given books to reinforce her Spanish at home, but the fact that she’s not even sure where they are suggests that they don’t see much use.

In contrast, students also create opportunities for Spanish use outside of those mandated by specific language policies.

KAREN: [My three daughters] will [use the languages amongst themselves], and with both languages they teach each other words.

In the example above, Karen describes how she has seen her three girls speaking different languages with each other. Two of the girls are in the Spanish immersion program, while the other is in the French immersion program. So, she has observed them at home teaching each other words from their different languages. In constructing new functions for their foreign languages, the girls’ individual language choices influence their siblings and advance their foreign language knowledge and awareness. Below is another example of a student who has a sister in the Spanish immersion program. Similarly, this student speaks Spanish to her sister with the goal of learning.

RESEARCHER: Por qué hablas español con tu hermana?

Why do you speak in Spanish with your sister?
BETTY: Porque ella quiere hablar en español, porque ella quiere aprender um aprender más español. Y yo quiero y yo dicí [sic] cuando vamos a jugar, ‘Quieres hablar en español?’ y ella dice ‘Sí, yo quiero aprender más español.’

Because she wants to speak in Spanish, because she wants to learn um to learn more Spanish. And I want and I say when we are going to play, Do you want to speak Spanish?’ and she says, ‘Yes, I want to learn more Spanish.’

RESEARCHER: Ah, ok. Y hablas a veces con ella en inglés, ¿por qué?

Ah, ok. And sometimes you speak to her in English. Why?

BETTY: Porque um mi hermana Laura ella, um, ella está um poquito tired, um a hablar en español y dice a yo, “Tu quieres hablar en ingles.” “Uh-huh, porque yo estoy un poquito tired a hablar en español todos los días.”

Because um my sister Laura she um she is a little tired um of speaking in Spanish and says to I, “Do you want to speak Spanish?” “Uh-huh, because I am a little tired of speaking in Spanish every day.”

While students Laura and Betty as well as their mother Briana admit that Spanish is not always spoken at home, both girls commented that they do sometimes use Spanish when speaking to each other at home. Here Betty retells how she and Laura negotiate which language they will speak. According to her, they jointly decide which language to use, though it appears that the older sister, Laura makes the decision. Based on Betty’s report, the sisters use Spanish in order to “learn more.” Spanish, then, is seen as an opportunity to advance learning even at home, the same function which it serves in school. English is spoken when the girls are “tired of speaking Spanish every day.” However, it is noticeable that they do not mention getting tired of speaking English every day. The sisters here are depicted as negotiating language choice based on academic or non-academic function as well as the desired degree of effort to put forth in the
Another example included students’ reported use of Spanish as a “secret language”.

ALISON: Sometimes [my brother and I use Spanish] when we’re playing games in Spanish, or when we’re pretending that we have a secret language, because my mom and dad don’t know very much Spanish.

While Alison does not use Spanish as a home language, her brother is also in the Spanish immersion program. Both siblings mentioned speaking Spanish as a “secret language” which her parents don’t understand. Several other students commented similarly on the use of Spanish as a “secret language”. This provides an example of the creativity of student’s individual language choice behavior in constructing an additional use for their school language. Though the students were taught Spanish for academic use at school, several sets of siblings described using Spanish in a subversive function, as a “secret language” to keep secrets from others.

An analysis of agency based on the Dynamic Model of Social Structures, then, adds to an understanding of language functions by exploring the forces from various individuals social structures enact these communicative functions. This analysis, additionally, has highlighted how students’ individual language choices result in resisting or creating new opportunities for Spanish language use. Up until this point, the individual linguistic behaviors and the agency exerted by social structures may seem rather disjointed, but a major tenet of the ecology of language metaphor is the interrelationship between the various social structures involved in language choice.

**Interrelationships between social structures**

In order to analyze the interrelationships between various social structures, the particular methods taken here will seek to account for the ideologies pervasive in language choice by
making natural social orders transparent, or “unnaturalizing” discourses (Heller & Martin-Jones, 2001, p. 2). Such research seeks to clarify “what kinds of language practices are valued and considered normal, appropriate and correct” (Heller & Martin-Jones, 2001, p. 2) In terms of theory, this work relies upon Bourdieu’s (1991) notion of legitimacies in language as ascribed, contested, and constructed by the members of certain groups.

**Ascribed language legitimacy in the school community.** In the present study, Spanish has legitimacy among the community of speakers at the school who are identified by being students and teachers in the Spanish classes, but the individual expressions of this differs by students. Various students are heritage learners, who use their Spanish actively to maintain their relationships with their family members including parents and grandparents. Other students mentioned advantages in learning Spanish such as job opportunities and travel. Another suggested that it is simply “fun”. Several highly motivated students mentioned teaching their siblings or parents words in Spanish.

While the previous paragraph enumerates examples in which the legitimacy of Spanish is ascribed by the school community; however, in certain contexts Spanish is contested as a legitimate language by the students in Spanish immersion program. For example, at times students disregard classroom language policies or respond in English to parents who are speaking Spanish to them. Some students simply explained that they don’t speak often, since they don’t know enough words. When asked to list appropriate uses for Spanish, students often used terms that denoted Spanish use as an obligation (“you have to”). Most students considered Spanish more difficult than English, and several said that it was more tiring to speak Spanish. When asked, 8 out of 10 students chose to hold the interview in English. Below David explains why.
DAVID: Hmm. Well, it’s… sometimes I speak a lot a lot of Spanish and sometimes I just want a little break from it.

David does not speak Spanish at home, but there was similar evidence of contested language legitimacy by individuals who do. Such is the case in the following response by Laura.

LAURA: [At home] We speak Spanish but my mom’s always like, “Oh yeah, you have to speak Spanish,” and then she starts speaking Spanish, except we always talk to her back in English and she’s like, “Why aren’t you guys speaking Spanish?” And we’re “O—kay.” And we start speaking Spanish. So [we speak] both.

Her mother, Briana, confirmed Laura’s comments, noting her frustration at her children’s responses and how difficult it was for her to keep returning to English. To her, the switch seemed almost automatic. She also noted that her two daughters never speak Spanish to each other when they are playing together, only when prompted by their parents.

Contested language legitimacy in the Tucson community. The missing piece that still has not been covered in this study is the macro-level involved in language choice. How does individual student language choice connect to the broader society? This small independent language immersion school is located in Tucson, Arizona, where approximately 35.7% of the population is Mexican in heritage (U.S Census Bureau). In 1988, Proposition 106 required all levels of the state and local government to “act in English and no other language” (Arizona State Legislature, 1988). This was later modified to include all levels of instruction, effectively outlawing public bilingual education. In April of 2010, the state approved SB 1070, allowing officials to check the immigration status of someone who may be in the country illegally upon “reasonable suspicion” (Arizona State Legislature, 2010). To say the least, Tucson has provided a somewhat hostile environment toward the Spanish language in recent history. Despite many frequent protests, the official stance on language in Arizona is that English is the only legitimate language.
Many of the parents in the school understand and oppose this situation. They refer to Spanish as a very beneficial language, especially in the immediate context, encouraging students to use Spanish at home, with family and in other contexts.

TRACEY: When [my daughter] could’ve done Spanish, English or French. We chose Spanish because of the immediate accessibility and use of the language.

KAREN: Well I do really feel like although America keeps pretending it’s not true, it is a global world, and it’s going to serve them well for the rest of their lives to have at least a second language.

Tracey, in the above quote, notes her reasoning for her daughter studying Spanish, and Karen, a parent of three children in the immersion programs, advocates the importance of language learning. In a situation where public bilingual and immersion programs are disallowed by the state, sending a child to school at a private language immersion school is a form of contesting the legitimacy of the “only English” statute.

However, in the sprawling Southwestern city of Tucson, it is easy stay in one’s neighborhood or barrio without recognizing other linguistic realities a few miles away. This was evidenced by the fact that only one student mentioned the use of Spanish with non-English speakers in this country, and surprisingly, he was not referring to Tucson, but Omaha.

CHARLES: And so I like pretty much ch-uh- in that, that was kind of like kind of a Spanish-speaking place [church in Omaha]. And sometimes when people c-, when there’s people who come over and when there were people who came over from other place from other places in America, they only know English. And so I have to trans-, and so like I kind of try to translate for them.

When Charles refers to Omaha as a “Spanish-speaking place” where he would translate church services from Spanish to English for people from other places, he indirectly ascribes a status of
an “English-speaking place” to Tucson. So, although students in this community are firmly sent the message that speaking different languages is important, does this counter the surrounding negative language attitudes and ideology reflected in statewide language policy? Do students see Spanish as immediately accessible and relevant for speaking to non-English speakers, or is it simply a school language? And does this allow students to avoid the tension between contested language legitimacies between their local context (school) and social network (family) and that of the broader society in Tucson, Arizona?

Conclusions

While individual language choices are affected by interlocutor, function, topic and other micro-linguistic factors, they are, at the same time, impacted by broader society. In viewing language as one social structure (Gafaranga, 2005) among many others, the Dynamic Model of Social Structures illustrates language choice as an engaging, dynamic process occurring simultaneous between and within various social structures (i.e., broader society, social network, local context, and individual linguistic behaviors). As such, the model is able to highlight and synthesize agency and function, two important, repeated themes throughout language choice research, by demonstrating 1) how social structures influence one another and 2) how individuals enact social identities through the discursive functions of their individual language choices.

Research from an elementary Spanish immersion program in Arizona demonstrates the application of this model. Specifically, the Dynamic Model illustrated how the discursive functions of certain language choices enact identities such as that of an “experienced Spanish immersion student”, how parents and social policy impact language choice, and how students
and parents respond to contested language legitimacies where some acknowledge the importance of Spanish in Tucson, and others ascribe Tucson a status of a “non-Spanish speaking place”.

These insights into the inner workings of language choice, though intriguing in their own right, are particularly applicable in the field of education. Most educators in the field are unaware of the reasons for students’ varied linguistic behavior, wondering why students choose to speak different languages. Exposure to such studies may give educators an appreciation for how students’ individual language behaviors enact social identities and furthermore, how various social structures, such as social networks, local context and the broader society influence the rich funds of knowledge which students bring to the classroom (Gonzalez, Moll & Amanti, 2005).
References


APPENDIX B. WHAT STUDENTS DO WITH WORDS: LANGUAGE CHOICE AND COMMUNICATIVE FUNCTION IN THE SPANISH IMMERSION CLASSROOM

Paper is currently under review with NABE (National Association for Bilingual Education) Journal of Research and Practice.
What Students Do with Words: Language Choice and Communicative Function in the Spanish Immersion Classroom

Abstract: Over the past 35 years, language immersion programs have been steadily increasing in number throughout the U.S. The popularity of these diverse, linguistically complex educational programs has led to a rather extensive body of research on language immersion. Research, however, has thus far focused primarily on the quantification of language use (the amount of target language versus first language use) in different settings and with different interlocutors. Very few studies have probed the interesting and significant sociolinguistic question of what students ‘do’ with languages in the classroom. The present study fills this research gap by investigating the communicative functions of student language use in a Spanish immersion classroom. Twelve hours of recorded spontaneous classroom speech were analyzed based on communicative function. The results show that contrary to the limited available research, students in this classroom use Spanish for a wide variety of communicative functions. These findings suggest that previous depictions of the diglossic classroom speech community may be influenced by the concept of figured worlds (Holland et. al., 1998), whereby the imagined typical immersion classroom (ie., where students only use the target language for academic functions) differs from the actual reality of immersion student language use (ie., students using the target language for a variety of discursive functions).

Language immersion programs, characterized by the teaching of content (such as history, math, and literature) in the target language, have been steadily increasing in number throughout the U.S. for the past 35 years (Lenker & Rhoades, 2007). While these programs vary by factors such as student population, context, and the division and amount of language instruction, language immersion programs are most notably differentiated by the one-way or two-way
distinction. In one-way immersion programs, all students are second language (L2) learners or foreign language learners of the target language; research has thus far focused mainly one one-way immersion (for a review, see Mackey, 2007 and Swain et. al., 2002). Two-way immersion programs, on the other hand, are characterized by a student population which includes both L2 learners of the target language and heritage speakers of the target language, who have learned the language of instruction as a home language. Currently, there are 448 one-way language immersion schools in 37 states, including 22 foreign languages in total, in addition to 248 two-way immersion programs across 23 states (CAL, 2014). The popularity of language immersion along with its unique diverse, linguistic complexity has led to a rather extensive body of research over the years. The present study adds to the growing body of research on two-way immersion programs (for a review of the literature, see Howard & Sugarman, 2007).

Most early research on immersion programs was informal, observational or anecdotal in nature (such as Blanco-Iglesias & Broner, 1993; Broner, 1991; Heitzman, 1993). When scholars acknowledged this tendency and the fact that it resulted in an “insufficient empirical basis on which to draw firm conclusions about the discourse characteristics of immersion classrooms and, therefore, about the impact of classroom interaction styles on language learning” (Genesee, 1991, p. 190), it set a strong research agenda for systematic research on actual language use in the immersion classroom.

Early informal observational and anecdotal research suggested that students used less of the target language as they advanced through to the upper grades (Blanco-Iglesias & Broner, 1993; Broner, 1991; Heitzman, 1993). Tarone & Swain (1992) responded to these reports with a sociolinguistic explanation that as a speech community, the immersion classroom naturally becomes increasingly diglossic over time, meaning that the students increasingly use certain
language varieties (in this case, the majority language or target language) for distinct purposes, interlocutors, and settings. Tarone & Swain (1995) based this claim on two sources of evidence: 1) a 26 month long longitudinal study of an English as a second language (ESL) student in Australia, beginning when he was five years old (Liu, 1991, 1994) and 2) an interview with an immersion program graduate (Swain, 1993). In the first case, it is important to note that the situation is distinct from that of a typical immersion language program. Nevertheless, in lieu of similar available research from immersion classrooms, Tarone & Swain (1995) compare conversations between the ESL student Bob and teacher as well as the ESL student and other peers. They note that Bob uses a much more limited range of functions, mostly responsive, in conversation with the teacher, compared to conversations with peers which are overall more assertive and initiative, including a much wider range of functions such as commands, arguing, insulting and criticizing. In the second case, the graduate of an immersion program remarks on her lack of access to a target language vernacular, or informal language, for performing certain linguistic functions such as for saying, “Come on guys, let’s get some burgers” (Swain, 1993, p. 6). The researchers, in turn, speculate that the reason students use more of the majority language instead of the target language as they advance through the grade levels is their lack of access to the target language vernacular. This claim reveals a persistent concern related to the range of communicative functions of student language use in immersion classrooms and calls for further research along this line. While scholars have responded to the call for systematic research on language use in the immersion classroom, it has primarily led to the quantification of target language versus the majority language use by students, often separated and analyzed according to interlocutor (teacher versus peer) or setting (teacher-led versus small group) (Blanco-Iglesias
& Broner, 1993; Broner, 1991). Research on the range of functions of student language use within the immersion classroom, on the other hand, has been vastly understudied.

The present study aims to fill this gap in research through an ethnographic case study which forms part of a large-scale, ongoing investigation on language use by students in a Spanish immersion program. The current paper focuses on the discursive functions of language use by 30 Spanish immersion students from kindergarten, first and second grade classrooms, including 24 L2 learners of Spanish and 6 heritage language learners. The investigation itself included over 150 hours of participant observation in the classrooms, and the core dataset for this analysis includes 12 hours of spontaneous classroom speech which has been transcribed and coded. This study addresses the insufficient existing data on the actual purposes and functions of student language use in the immersion classroom, beyond the quantification of which language is used in certain settings and role relationships. The present study, thus, answers the important question: What do Spanish immersion students do with words? Insights into immersion students’ functional use of the target language and majority language within the classroom holds important implications for understanding language learning in this unique educational setting.

**Literature Review**

**Language Use in the Immersion Classroom**

Concern for systematic research on actual language use in the immersion classroom has prompted much investigation over the past several decades. Up until this point, however, it has remained widely dominated by studies which quantify the amount of the target language and majority language spoken in the classroom (Blanco-Iglesias & Broner, 1993; Broner, 1990). Beyond the mere quantification of language choice, scholars have sought to explore the influence of related factors including the individual’s language background (heritage speaker of target
language v. L2 learner of target language), interlocutor role (teacher v. peer), interlocutor language background (L1 speaker of target language v. L2 speaker of target language) and classroom setting (small group v. large group instruction) (for example, Potowski, 2004; Shenk, 2007). A summary of the findings shows many similarities in addition to some notable discrepancies. While most studies demonstrate a general student preference for speaking the majority language, some studies show that the student’s language background had an effect on language use (e.g., Ballinger & Lyster, 2011) in contrast to others (Potowski, 2004, 2007). Additionally, most research demonstrates a tendency for students to speak more of the target language with the teacher than with peers (Potowski, 2004). Speaking with heritage language speaker peers was alternatively found to enhance target language use (e.g., Panfil, 1995; Ballinger & Lyster, 2011) or demonstrate no effect (Potowski, 2004, 2007). This inconsistency reveals a need for more research into language immersion programs, given the fact that so many qualitative variables are at play. (See Ballinger & Lyster, 2011 for a detailed literature review of research in one-way and two-way immersion classrooms.)

Notably, studies focusing on the amount of each language used with whom in different contexts only reveal so much. For instance, it does not tell us what the students are saying or what they are, in essence, ‘doing’ with the words they use in the respective languages. It is for this reason that the present study on the communicative function of language use stands to make a considerable contribution to current understandings of language learning in the immersion classroom.

**Functions of Language Use in the Immersion Classroom**

While research on the functions of language use in the immersion classroom is sparse, there are a notable few. To my knowledge, only three articles have explored the functions of
student language use in the immersion classroom, setting aside those which involve the functions of teacher talk (Kim & Elder, 2005; Legarreta, 1997). First, Broner & Tarone (2001) present a unique analysis of a specific language function in the immersion classroom, dealing with two distinct types of language play. Their study makes an important contribution to the role of language play in language learning and the process of second language acquisition. However, it differs from a more general analysis of the broad range of functions for language use presented in the present study. Secondly, Dornyei & Layton (2014) present a socio-cultural study of student language use which reveals that while students imitate teachers and translators’ language use in large group settings, small group settings include diverse multilingual discourses. The researchers particularly report that students use creative dialogues about language and identity in small group work. Last, Spezzini (2010) investigates student patterns of language use among 34 12th graders from an English immersion school in Paraguay. The findings suggest a drop in the use of the L2 during structured activities in immersion classrooms as students progress to upper grades. Interestingly, Spezzini (2010) did look at more specific functions of language use. For instance, she found that students reported using Spanish for emotions at a rate of 78% especially for strong emotions. For thinking and dreaming, the use of Spanish dropped to 60%; however, it should be noted that thinking may have included academic purposes. For recreational reading, a mixture of Spanish and English was reported at a rate of 27%, only Spanish was reported at a rate of 21%. Significantly, all these findings are based on student self reports which provides a certain type of knowledge only.

**Communicative Function**

Although linguistics originally encompassed aspects of language use and language structure, the field was strongly impacted by Noam Chomsky’s (1965) conceptualization of
linguistic ‘competence’ as idealized language inside the mind, which should be regarded as more important than and entirely separately from ‘performance’. This resulted in a split in the field of linguistics which yielded a *product* tradition which focuses on language structure, and an *action* tradition which emphasizes language use (Clark, 1992). While the field continues to be dominated by primarily cognitive/mentalistic approaches, more recently scholars have called for more social/contextual orientations (Firth & Wagner, 1997; Liddicoat, 1997). Integral to this change was Hymes’ (1972) coining of ‘communicative competence’ as an alternative to Chomsky’s ‘competence’. In addition to grammatical knowledge of a language, communicative competence emphasizes the importance of the rules for appropriate use, or “communicative form and function in integral relation to each other” (Hymes, 1994, p. 12). Hymes went even further as to outline the ‘ethnography of speaking’ (1974), a methodology concerned with “situations and uses, the patterns and functions, of speaking as an activity in its own right” (p.16). Under the ‘ethnography of speaking’, a key concept set forth by Hymes is that of a ‘speech community’ which naturally includes a variety of speech styles and registers suitable for different contexts. Another important notion is that of ‘communicative function’ (Hymes, 1974) as a unit of analysis which recognizes the purposeful nature of linguistic interactions and focuses on patterns within the speech community. Instead of isolating one abstract linguistic code for study, Hymes (1974) advocates investigating all varieties found within a speech community according to: 1) speech events, 2) constituent factors, such as sender, receiver, topic, setting, and 3) functions of speech events, in which the focus is the differences and similarities between/among communities. Hymes (1974) outlines 7 broad types of function as follows: expressive, directive, poetic, contact, metalinguistic, referential, and contextual. For Hymes (1974), the primary
objective of the ethnographer is to determine which functions are being “encoded” and “decoded”, in other words, which functions are intended and perceived by participants (p.34).

Around the same time, Austin’s (1962) “How to Do Things with Words” was published based on a series of lectures and introducing the concept of “speech acts”. Searle (1969) brought “speech act theory” into the realm of linguistics, further dividing Austin’s (1962) illocutionary act into 5 categories: representatives/assertives, directives, commissives, and declarations. Although the lists of “communicative functions” and “speech acts” are similar, “there are differences in perspective and scope which separate the fields of ethnography of communication and speech act theory” (Saville-Troike, 2003, p.13). The present study aligns most closely with Hymes’ ‘ethnography of communication’, but both fields have undeniably influenced the present analysis.

Methods

Setting and Participants

The present study took place in a two-way Spanish immersion program in Tucson, Arizona which offered Spanish, French and German immersion classes for children from preschool (age 3) through 5th grade at the time of the study. At the school, the preschool and kindergarten classes receive instruction in the chosen target language with the same instructor the entire day, excluding lunch, recess, and extra-curricular activities. In the 1st and 2nd grades, the students receive instruction in English for half the day with one teacher, and instruction during the other half of the day is in the chosen target language with a different teacher who is a native speaker of that language. The study included 30 Spanish immersion students from the kindergarten (4 female, 4 male), 1st grade (7 female, 4 male) and 2nd grade (5 female, 6 male) classes. Of the 30 students in the study, 24 (12 female, 12 male) were L2 learners of Spanish and
6 (4 female, 2 male) were heritage speakers of Spanish students. The heritage speakers of Spanish were diverse, including two students who were born in Mexico, three who had a mother who was born in Columbia, and one who was born in Ecuador. The Spanish instructors for the kindergarten, 1st and 2nd grades were Peruvian.

**Data Collection**

For this study, I was involved in participant observation for over 150 hours of student classroom time, both observing and assisting the instructor when possible. The corpus of data for the present analysis is 12 hours of transcribed audio-recorded data from the kindergarten, 1st and 2nd grade classrooms. Several small microphones were placed at different ‘centers’ stationed around the rooms in order to record student speech. These recordings were later combined and transcribed into a single transcription. Each recording and transcript represents an entire day of Spanish language instruction for the class. Notably, the kindergarten students were in their Spanish classroom for 6 hours while the 1st and 2nd graders were in their classrooms for 3 hours each due to the aforementioned nature of the half day in English class and half day in Spanish class for the other grades.

**Data Analysis**

The unit of analysis employed was a turn of speech (Ellis, 1994; Levinson, 1983), defined as any time an interlocutor stopped talking or was interrupted by another interlocutor’s turn. Each individual code-switch was then coded based on 1) language background of the speaker, 2) language of turn (Spanish, English or Both), 3) grade level, 4) initiative v. responsive turn, and 5) communicative function. Bilingual turns were coded as ‘both’ for several reasons. First of all, there is substantial debate over what constitutes a code-switch; for instance, whether it may be a single-word switch or multi-word switch. Secondly, the present analysis focuses on
the communicative function of turns of speech by language use. (See Christoffersen, 2014 for a
detailed analysis of the discursive functions and grammatical patterns of code-switching by
students in this setting.)

In performing the analysis of communicative function, the categories were influenced by
the ‘ethnography of speaking’ (Hymes, 1974) and speech act theory (Searle, 1969); however, the
resulting categories were created by the researcher based on major themes that emerged from the
data. The categories of communicative function used in the present data analysis include:
playing, positioning (blaming, arguing), evaluating/complaining, commanding/reprimanding,
thanking/apologizing, joking, requesting, requesting information, and assertions (storytelling,
answers, declarative statements). It is important to note that while function may coincide with a
certain turn of talk, it often does not. Thus, in the coding of this data, many turns were coded
with multiple functions. In other instances when no clear connection could be made to the
outlined examples of communicative functions, no communicative function was coded for that
turn of talk. Below is a series of examples of communicative function from the present study’s
corpus according to the nine categories.

1. Playing
   BETO: I am the police dog. [in a role play activity]

2. Positioning
   JESSICA: Señora, Matthew está hablando en inglés.
   Translation: Mrs., Matthew is speaking in English.

3. Evaluating/Complaining
   CARLA: Yo tenía este seat. [when researcher sat down, having
taken her seat]
   Translation: I had this seat.

4. Commanding/Reprimanding
   JESSICA: Matthew, ¡no jugar!
   Translation: Matthew, no playing!
5. Thanking/Apologizing

   TARA: I didn’t mean to do that.

6. Joking

   SEÑORA: ¿Qué color es el uniforme?
   Translation: What color is the uniform?
   TARA: ¡Uniformio! [Says smiling]
   Translation: invented word for uniform (attempted Spanish)

7. Requesting

   BRIANNA: After can I be it? [Asking to change roles in a role
   play game]

8. Requesting Information

   BEN: Señora, ¿una placa es a badge?
   Translation: Mrs., a badge is a badge?

9. Assertions

   VICTOR: En norteamérica todos los policías es negro.
   Translation: In North America all the police is black.

Results

The results of the present study are organized into three major sections: 1) a
quantification of the general patterns of Spanish/English use, 2) a quantititative analysis of the
communicative functions of language use, and 3) a qualitative analysis of communicative
functions of language use. The first section provides an overall depiction of the classroom
setting and patterns of language use broadly described, also allowing a point of comparison to
the considerable body of research on the quantification of target language versus majority
language use in the immersion classroom. The second section explores the communicative
functions of student language use in the Spanish immersion classroom which adds a significant
and widely understudied perspective. The third and final section describes in more detail the
findings of communicative function of language use in the immersion classroom including
specific examples from the present corpus and a possible explanation for the discrepancy with previous research.

**Overall Patterns of Spanish/English Language Use in the Immersion Classroom**

An investigation into the overall patterns of Spanish/English student language use in the Spanish immersion classroom provides an important general picture of the setting. It also affords a point of comparison to the large body of research which has already been conducted throughout the past couple decades quantifying L1 and L2 use in the immersion classroom. The overall patterns of Spanish/English use will be described by grade level and language background.

Table 1. Language use per turn across grade level.

<table>
<thead>
<tr>
<th>Language</th>
<th>Kindergarten</th>
<th>1st Grade</th>
<th>2nd Grade</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Spanish</td>
<td>34.4</td>
<td>(99)</td>
<td>73.2</td>
<td>(115)</td>
</tr>
<tr>
<td>English</td>
<td>51.4</td>
<td>(148)</td>
<td>15.9</td>
<td>(25)</td>
</tr>
<tr>
<td>Both</td>
<td>14.2</td>
<td>(41)</td>
<td>10.8</td>
<td>(17)</td>
</tr>
</tbody>
</table>

|          |             |           |           |       |       |       |
|----------|-------------|-----------|-----------|-------|
|          | 55.9        | (288)     | 30.5      | (157) | 13.6  | (70)  |
|          | 100.0       | (515)     |           |       |       |       |

**Overall language use by grade level.** Research throughout the years has shown a tendency for students to use less of the target language as they advance through grade levels (Blanco-Iglesias & Broner, 1993; Broner, 1991; Heitzman, 1993). As depicted in Table 1, the frequent use of Spanish in 1st and 2nd grades (73.2%) may seem to confirm the findings of Blanco-Iglesias & Broner (1993), who note a peak in the use of Spanish during structured activities in 2nd grade. It does not, however, follow their reported trend for a subsequent drop in Spanish language use in 2nd grade (80.0%). Additionally, the high percentage of Spanish turns in all grades (34.4%, 73.2%, 80.0%, respectively) seems to question whether the classroom as a speech community
becomes increasingly diglossic, a situation whereby students reserve the target language only for specific, non-academic discursive functions, as suggested by some researchers (Lee, Hill-Bonnet & Gillespie, 2008; Tarone & Swain, 1995).

Table 2. Language use per student turn across language background.

<table>
<thead>
<tr>
<th>Language</th>
<th>Heritage Speakers of Spanish</th>
<th>L2 Learners of Spanish</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Spanish</td>
<td>75.0</td>
<td>(84)</td>
<td>44.1</td>
</tr>
<tr>
<td>English</td>
<td>21.4</td>
<td>(24)</td>
<td>37.7</td>
</tr>
<tr>
<td>Both</td>
<td>03.6</td>
<td>(4)</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>24.5</td>
<td>(112)</td>
<td>75.5</td>
</tr>
</tbody>
</table>

**Overall language use by language background.** Since the immersion classroom under investigation includes both heritage speakers of Spanish and L2 learners of Spanish, it is appropriate as well to compare Spanish/English language use by language background. As might be expected, heritage speakers of Spanish speak more Spanish (75.0%), but Spanish also comprises a majority of the turns of talk by L2 learners of Spanish (44.1%), resulting in a sum of 51.6% of classroom conversational turns in the target language (Table 2). This suggests that while language background does influence language use, all students use more Spanish than English. Also, there are more L2 learners of Spanish in the class than heritage speakers of Spanish, it is fitting that L2 learners would have more total conversational turns in the dataset (75.5%).

**Communicative Functions of Language Use in the Immersion Classroom**
The major point of contribution of the present paper is the exploration of the communicative functions of student language use in the classroom. The categories of communicative functions which emerged from the data and were influenced by the ‘ethnography of speaking’ (Hymes, 1974) and ‘speech act theory’ (Searle, 1969) and include: playing (games, songs), positioning (blaming, arguing, bragging), evaluating & complaining, commanding & reprimanding, politeness (thanking, apologizing), joking, requesting, and requesting information.

The following section of results will be separated into analyses of communicative functions in the Spanish immersion classroom by language use, grade level, and finally an overall picture of the communicative functions used by students in the target language, in this case, Spanish.

**Communicative Functions by Language.** At first glance, the results in the following table (Table 3) may seem rather predictable, given the fact that the most common communicative function for Spanish turns is assertions (37.8%), comprised mainly of answers to questions and requests (17.0%) mostly for asking permission from the teacher. The English turns seem to tell a similar story as the most common communicative function for English, playing (95.6%), does not seem surprising.

Table 3. Communicative function per student turn by language.

<table>
<thead>
<tr>
<th>Communicative Function</th>
<th>Spanish</th>
<th></th>
<th>English</th>
<th></th>
<th>Both</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
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<tbody>
<tr>
<td></td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Playing</td>
<td>05.7</td>
<td>(16)</td>
<td>95.6</td>
<td>(19)</td>
<td>09.2</td>
<td>(6)</td>
<td>07.9</td>
<td>(41)</td>
</tr>
<tr>
<td>Positioning</td>
<td>08.1</td>
<td>(23)</td>
<td>04.4</td>
<td>(16)</td>
<td>10.8</td>
<td>(7)</td>
<td>08.8</td>
<td>(46)</td>
</tr>
<tr>
<td>Evaluating/Complaining</td>
<td>13.4</td>
<td>(38)</td>
<td>20.3</td>
<td>(35)</td>
<td>10.8</td>
<td>(7)</td>
<td>15.4</td>
<td>(80)</td>
</tr>
<tr>
<td>Commanding/Reprimanding</td>
<td>03.5</td>
<td>(10)</td>
<td>02.9</td>
<td>(5)</td>
<td>01.5</td>
<td>(1)</td>
<td>03.1</td>
<td>(16)</td>
</tr>
<tr>
<td>Politeness</td>
<td>01.1</td>
<td>(3)</td>
<td>01.7</td>
<td>(3)</td>
<td>00.0</td>
<td>(0)</td>
<td>01.2</td>
<td>(6)</td>
</tr>
<tr>
<td>Joking</td>
<td>05.3</td>
<td>(15)</td>
<td>01.2</td>
<td>(2)</td>
<td>01.5</td>
<td>(1)</td>
<td>03.5</td>
<td>(18)</td>
</tr>
<tr>
<td>Requesting</td>
<td>17.0</td>
<td>(48)</td>
<td>15.7</td>
<td>(27)</td>
<td>27.7</td>
<td>(18)</td>
<td>17.9</td>
<td>(93)</td>
</tr>
<tr>
<td>Requesting information</td>
<td>08.1</td>
<td>(23)</td>
<td>04.7</td>
<td>(8)</td>
<td>06.2</td>
<td>(4)</td>
<td>06.7</td>
<td>(35)</td>
</tr>
<tr>
<td>Assertions</td>
<td>37.8</td>
<td>(107)</td>
<td>33.1</td>
<td>(57)</td>
<td>32.3</td>
<td>(21)</td>
<td>35.6</td>
<td>(185)</td>
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<td>54.4</td>
<td>(283)</td>
<td>33.01</td>
<td>(172)</td>
<td>12.5</td>
<td>(65)</td>
<td>100.0</td>
<td>(520)</td>
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</table>
The interesting point here is that students use Spanish, the target language, for a wide variety of functions (Figure 1), contrary to what others have speculated (Tarone & Swain, 1995). For instance, Table 3 demonstrates that students use Spanish for evaluating/complaining (13.4%) and positioning (8.1%) for their third and fourth most common communicative functions of Spanish turns. This may be due to the fact Tarone & Swain’s (1995) hypothesis was based on an ESL student in a classroom in a very different context (Liu, 1991, 1994) or that the reported findings from their immersion student graduate differed from reality (Swain, 1991). On the other hand, it may be related to the high degree of variability in contextual and social factors across immersion programs. It is certain that more research is needed in order to further explore this question.

Figure 1. Communicative functions of target language (Spanish) use out of total target language (Spanish) turns
Communicative function by grade. Since several scholars have suggested that immersion classrooms may become increasingly diglossic as students advance through grade levels, it is also appropriate to analyze communicative function by grade level. Figure 2 below depicts the total Spanish turns by grade level, showing the breakdown by communicative function.

Interestingly, the findings show no drop or dramatic change in communicative function for the Spanish language across grade levels. Instead, it shows that students in all grade levels use Spanish for a wide variety of communicative functions. A few exceptions include the fact that the dataset did not find any tokens of Spanish politeness for 2nd graders; however, the students did not exhibit politeness in the dataset in English either. Secondly, the first graders seem to demonstrate a great preference for using Spanish for commanding and reprimanding. Since this
is a cross-sectional study and not a longitudinal study, findings should be considered with caution, given the likelihood that differences in individuals and classes affect the results.

Figure 2. Percentage of Spanish turns per communicative function by grade.

Qualitative Analysis of Communicative Function in the Immersion Classroom

Request, complaints, and evaluations. As depicted above (Table 3, Figure 1, Figure 2), requests, complaints and evaluations are all among the top initiated L2 interactions in the Spanish immersion classroom. Common requests throughout the dataset included classroom materials, food, water, and change in activities. Complaints were usually made about other students, while evaluations were opinionated comments on a wide range of topics.

Request  TOMMY: Yo quiero pan.  
I want bread.

Complaint  LAURA: Sra. Alvarez, Marcos está jugando.  
Mrs. Alvarez, Marcos is playing.

Evaluation  NATALIE: Me gusta este. [picking up a Littlest Pet Shop toy]  
I like this one.
LYDIA: No, esta como aliens.  
No, this like aliens.
NATALIE: Yo creo es Cuddlebugs.
*I think it is Cuddlebugs.*

This last example of an evaluation is particularly interesting, because the girls were whispering among themselves at their desk at a moment when they should have been listening to a poetry presentation. This demonstrates how students in this classroom speech community construct their own spaces for using the target language for a wide variety of functions.

**Commands, arguments, and insults.** Furthermore, students command, argue and insult in their L2 with their classmates.

*Command*  
VICTOR: Cristina, ponlo allí. Mira.  
*Cristina, put it there. Look.*

*Argument*  
TARA: Ella tiene el pencilbox. Hide it aqui.  
*She has the pencilbox. Hide it here.*

LAURA: Pero no es aqui, mira!  
*But it is not here. Look!*

*Insult*  
JOSUE: Nick tiene un bebé.  
Nick has a baby.  
[The baby being referred to is Marcos, who Nicolas often helps in class.]

Here students are using the Spanish which they have learning in a primarily academic context and repurposing it to serve an informal function. For instance, here “bebé” takes on a new non-literal meaning, and students have learned that “mira” can be both instructional, as in the command example, and emphatic, as in the argument example.

**Informal teacher/student interactions in L2.** Additionally, quite frequently these informal initiative interactions occur between teacher and student.

*Joke*  
JULIE: Mira. Hay araña.  
*Look. There is a spider.*

SRA. A.: ¿Dónde?  
*Where?*

JULIE: En la planta.  
*In the plant.*

SRA. A.: Ooh! Sabe que no me gusta.  
*Ooh! [playful tone] She knows that I don’t like them. [directed to researcher]*
The teaching philosophy, report and style may also indicate why students use the target language for a wide variety of informal non-academic discursive functions in this school. For instance, the following excerpt from an interview with the Spanish immersion kindergarten instructor’s reveals much about her teaching philosophy.

Kindergarten Instructor: [Quiero] que [los niños] sientan que yo soy parte de ellos, que yo juego con ellos, que yo los quiero. Entonces no que me vean a mi como una figura muy arriba y yo abajo, no. Yo soy parte de ellos. Y yo creo que esta es la diferencia en que ellos se sientan ansiosos para aprender, de venir a la escuela, de querer aprender.

*I want [the children] to feel that I am a part of them, that I play with them, that I love them. So, not that they see me like a figure who is very high and I below, no. I am a part of them. And I believe that this is the difference that makes them feel anxious to learn, to come to school, to want to learn.*

An egalitarian philosophy of teaching where neither the teacher nor student is “very high” or “below” may be a reason for the students’ use of the target language for a wide variety of contexts and functions. Future studies on the impact of school philosophies would be useful to clarify the impact of school and individual instructor philosophies of education on the communicative functions of student target language use.

**Unimagined functions and forms in the immersion classroom.** According to popular critiques of immersion schools (Tarone & Swain, 1995), students in such programs exercise a limited range of functions in the target language. Expected functions of student target language use may commonly include requesting (such as permission), requesting information (asking questions), and assertions (answering questions). However, these noticeably comprise only 54% of the total communicative functions of Spanish turns from the present dataset. So, the remaining 46% of communicative functions in Spanish are unanticipated uses of the target language within the Spanish immersion context. Such a contrast may be due to the idea of figured worlds presented by Holland et. al.’s (1998) notion of “figured worlds”. The figured worlds construct would
suggest that these alternative communicative functions of the target language use do not fit with our imagined or figured world of a typical classroom. We do not at first envision arguments, jokes and complaints as a part of the classroom.

*Positioning*  [Argument about a missing pencil box]

ERIC: Ella tiene el pencilbox. Hide it aqui. Mira.

*She has the pencilbox. Hide it here. Look.*

SARA: Pero no es en aqui. ¡Mira!

*But it is not in here. Look!*

*Evaluating*  [Side conversation about Littlest Pet Shop toys]

NATALIE: Me gusta este.

*I like this.*

LYDIA: Esta como aliens.

*This like aliens.*

NATALIE: Yo creo es cuddlebugs.

*I think it is cuddlebugs.*

These examples depict how students use Spanish and a combination of Spanish and English to discuss or argue over common occurrences during the school day, yet these forms of discourse are often not acknowledged within the immersion classroom. Instead of acknowledging certain functions of language use within the classroom, all forms and functions of language must be recognized in classroom research in order to give a comprehensive overview of language use in the immersion classroom.

**Conclusion**

The present study has contributed to the growing body of research on two-way immersion programs, especially with its unique endeavor to discover what students “do” with words through an investigation of communicative function. First the paper presented an analysis
of overall patterns of language use in the kindergarten through 2nd grade Spanish immersion classrooms. An analysis by grade level differed from other research in showing a steady increase in the amount of Spanish conversational turns from kindergarten through 2nd grade. Additionally, all grade levels demonstrated a high percentage of Spanish use, which brings into question whether there is a drop in L2 use as students progress through grade levels in all immersion programs, as has been previously reported (Broner, 1993). Furthermore, the present study found that while heritage speakers of Spanish use more Spanish in the classroom, L2 learners of Spanish use more Spanish than English.

The investigation of communicative functions of language use in the immersion classroom elicited the greatest contribution, since until this point there has not been a similar study on overall communicative functions of language use by students in language immersion programs. The top two communicative functions of Spanish turns in the classroom were rather unsurprising: assertions (37.8%), commonly answers to questions, and requests (17.0%), usually students asking permission. Similarly, the top communicative function for English turns was playing (95%), which is an expected choice for students in a society where English is the majority language. Interestingly, though, students did use the target language, Spanish, for a wide variety of functions including evaluating/complaining (13.4%) and positioning (8.1%), or blaming and arguing. There was no significant change in communicative functions for Spanish across grade levels, which may contradict previous claims that the immersion classroom becomes increasingly diglossic over time (Tarone & Swain, 1995). Alternatively, it may simply demonstrate that the classroom becomes diglossic in different ways.

Lastly, a qualitative analysis of communicative function in the classroom reveals that students use the L2 or target language for a wider variety of functions than may be expected.
The difference between the expectation and the observed findings from this systematic investigations may be explained by the notion of “figured or imagined worlds” (Holland et. al., 1998). The “figured worlds” construct would suggest that some communicative functions, such as arguments, jokes or complaints, do not fit with our imagined or figured world of a typical classroom. This explains why previous mostly anecdotal and observational research has not acknowledged the entirety of student language use and hence the breadth of students’ communicative competence. Moreover, an interview with a Spanish immersion teacher demonstrates the instructor’s egalitarian perspective on the teacher/student relationship with no one in the classroom “very high” or “very low”; as the teacher stated, “I am part of them.” This may demonstrates the influence of individual teacher philosophies on student language use in the immersion classroom, revealing the importance of a large body of studies from a diverse group of immersion programs in order to gain a better understanding of language learning in this educational setting.

While the findings of this study are of great import, there is another significant aspect of the current research endeavor. This project carries with it the hopes to shift the overriding perspective on immersion student language use. While use of the target language is vital for language learning, we should also seek to realize that we need not focus solely on the amount of target language use but the functions of purposes of target language use. As Hymes (1974) argued decades ago, we should seek to emphasize student development of “communicative competence” in which they gain not only grammatical knowledge of the target language but also the ability to employ that language appropriately for a variety of functions and settings. Furthermore, if we are to consider the language immersion classroom as a speech community, we need to recognize the diverse learners in that setting as actively constructing rules for
appropriate use of their languages in that setting. The present study has found remarkable
evidence of students demonstrating their ability to create appropriate uses for the majority
language and the target language in order to serve a wide variety of functions in their
community.
References


APPENDIX C. DOES CHILD CODE-SWITCHING DEMONSTRATE COMMUNICATIVE
COMPETENCE?: A COMPARISON OF SIMULTANEOUS AND SEQUENTIAL
BILINGUALS

Paper was published in Arizona Working Papers in Second Language Acquisition and Teaching.
Does Child Code-Switching Demonstrate Communicative Competence?: A Comparison of Simultaneous and Sequential Bilinguals

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Over the past four decades, code-switching (CS) has been established as a mark of high linguistic competence among adult simultaneous (2L1) bilinguals, those who acquired two ‘first’ languages before age three. The status of CS among second language (L2) learners, who learned one language after age three, is much less clear; children represent an especially understudied population in this line of inquiry. This study aims to address this research gap and presents a comparison of child 2L1 bilinguals and child L2 learners in kindergarten, first and second grade of a Spanish immersion program. Twelve hours of recorded spontaneous classroom speech were analyzed for grammatical categories, switch points, and conversational strategies of CS. The results of this study show that the grammatical patterns and conversational strategies of child L2 learner CS strongly parallel those of 2L1 child bilinguals, pointing toward a high level of linguistic competence. Based on these findings, it is suggested that proficiency rather than language background may be a greater factor in CS patterns. Furthermore, evidence of the strategic use of CS by 2L1 and L2 learners alike suggests the potential benefit of an alternative bilingual pedagogy, which normalizes the use of CS as a linguistic resource instead of the more commonly evoked ‘deficit perspective’ on L2 learner CS.
Since the mid-20th century a great deal of research has been devoted to the linguistic practice of code-switching (CS), “an individual’s use of two or more language varieties within the same speech event or exchange” (Woolard, 2004, p. 73-74). In a review of the CS literature, Boztepe (2003) explains that research has proceeded in two directions since its onset: structural and sociolinguistic. The structurally oriented research focuses on grammatical patterns and constraints while the sociolinguistic research approaches CS as discourse-related and seeks to identify “how social meaning is created in code-switching and what specific discourse functions it serves” (Boztepe, 2003, p. 3). The present paper is an attempt to integrate both perspectives and, more specifically, to explore whether these patterns reveal evidence of code-switching as communicative competence.

Communicative competence was a term coined by Hymes (1972) in reaction to Noam Chomsky’s (1965) conception of linguistic ‘competence’ as idealized language inside the mind, which he argued should be regarded as more important than and entirely separate from ‘performance’, or actual spoken language. Hymes (1972) posited the alternative view of communicative competence as including the individual’s grammatical knowledge of a language as well as the rules for appropriate use, or “communicative form and function in integral relation to each other” (Hymes, 1994, p. 12). Based on this understanding of language, the present study analyzes external aspects (shared knowledge of how to manage conversations, respect social values based on setting and other observables) and internal aspects (within the heads of the speakers, dependent upon
the internalized knowledge and the structure of language itself) of child CS, following Zentella (1997).

Since the emergence of CS as a research topic, researchers have shown great interest in the connection between CS and language ability (whether ‘linguistic competence’ or ‘communicative competence’). Early popular assumptions depicted CS as a random, disorganized, deviant combination of two or more languages, which characterized individuals with low language ability. Decades of research have revealed that CS is in fact based on shared rules of appropriateness, patterned grammatical switch points, and strategic conversational functions (Lipski, 1985; Pfaff, 1975; Poplack, 1980; Timm, 1975; Zentella, 1981a 1982, among others). Linguists now understand CS as a mark of metalinguistic awareness among highly competent adult native bilinguals, who acquired both languages early on. However, this line of inquiry has focused almost entirely on adult native bilinguals, while only a small minority of this research has explored other bilingual, multilingual populations, such as L2 learners (for example, Ogane, 1997) and children (for example, Reyes, 2001, 2004; Zentella, 1997). The present study contributes to both of these populations in an investigation of the patterns of code-switching by children in a language immersion program.

Language immersion is generally defined as a program where the instructor teaches a variety of subjects (such as literacy, math, science) in the target language, but there are a wide spectrum of language immersion programs which differ in a number of ways. Just a few of the many variables of school-based language immersion programs include the ages of the students (elementary, kindergarten, secondary, higher education),
the duration of the program (one year, one semester), or the amount of time of language instruction (full day, half day or hours). Additionally, language immersion programs are commonly identified as either one-way and two-way, or dual, immersion programs. One-way immersion programs are programs where the target language is an L2 or foreign language for all of the students. Most research has focused on one-way instruction (for a review, see Mackey, 2007 and Swain et. al., 2002). Two-way immersion programs, on the other hand, are characterized by a linguistically diverse student population including native heritage speakers, who have learned the language of instruction as a home language as well as L2 learners of the target language.

In two-way immersion programs, L1/L2 labels are problematic on several levels. First, students often begin these programs at very young ages, so it is an important theoretical question whether the L2 label, so often used for adult language learners, accurately depicts these students. Secondly, for students who speak the target language as a home language, or heritage language speakers, it is important to recognize that these students often simultaneously acquire the societal majority language and the heritage/home language (also the target language within the immersion program) in a process referred to as “bilingual first language acquisition” (DeHouwer, 1996). Thus, in this context, it is more appropriate to evoke McLaughlin’s (1984) distinction between simultaneous (2L1) bilingualism, when two first languages are acquired before age three,
and sequential (L2)\(^1\) bilingualism, where a second language is acquired after three years of age.

Scholarship on the CS patterns of young L2 learners has increased in recent years, although most of this research emphasizes the functions, pedagogical implications and communicative strategies (Liebscher & Dailey-O’Cain, 2005; Moore, 2002; Ustenel & Seedhouse, 2005) of L2 learner CS, while very few studies attend to the grammatical patterns of CS (except Ogane, 1997; Toribio, 2001). To my knowledge, there are no existing studies on the grammatical patterns of L2 CS among children, nor studies that explore both functional and grammatical patterns of 2L1 and L2 bilingual children. This gap in the literature means that the CS practices of child L2 learners, and the pedagogical implications thereof, continue to remain underresearched and undertheorized.

In order to fill this void in the literature, the present paper presents an ethnographic investigation comparing grammatical and functional patterns of child L2 learners of Spanish and child 2L1 Spanish/English bilinguals. The CS practices analyzed in the present paper consist of 12 hours of spontaneous classroom speech from 30 students, twenty-four L2 learners of Spanish and six 2L1 Spanish/English bilinguals, from the kindergarten, first, and second grade classrooms of a Spanish immersion program in the Southwestern United States.

**Literature Review**

**L2 Learner Code-Switching**

\(^1\) The notation of L2 will be used for sequential bilingualism throughout this paper following research which draws this comparison (see for example Paradis, 2008).
In spite of significant scholarly interest in the topic of CS since the mid-20th century, investigations into the patterns of L2 learner CS began several decades later (Jake & Myers-Scotton, 1997; Myers-Scotton, 1993; Poulisse & Bongaerts, 1994). This may be due in part to the negative view of L2 learner CS as a flawed, detrimental linguistic behavior (see for instance Weinreich, 1953). Furthermore, it is commonly believed that the sole reason L2 learners code-switch is to compensate for a lexical, linguistic, or conceptual gap in their L2 knowledge (see, for instance, Arnberg and Arneg, 1985; Boeschoten and Verhoeven, 1987; Lindholm and Padilla, 1978). Based on this deficit perspective, it is not surprising that most of the initial studies on L2 learner CS involved experiments, which were meant to compare the grammatical properties and switch-points of L2 learner and native bilingual CS. One common example of a CS experiment is where participants are asked to judge the acceptability of CS tokens. These studies report a strong correlation between the ‘grammaticality’ of CS and L2 learner proficiency level (Jake, 1997; Toribio, 2001, among others). In other words, proficient L2 learners demonstrated more congruent switch points in the sentence frame, where the grammar of both languages was maintained. Very few naturalistic studies using spontaneous speech from L2 learner contexts explore the grammatical patterns of L2 learner CS. A few noteworthy exceptions include studies by Legenhausen (1991) and Ogane (1997) of German students in a French classroom and Japanese students in an English classroom, respectively. Legenhausen (1991) observes that while some L2 learner CS is triggered by a lack of L2 proficiency, it is not primarily so. Furthermore, Ogane (1997) reports that L2 learners favor tag switches (e.g., It’s like that, ¿no?) and
noun, single-item switches (e.g., Yo tenia este seat.). These patterns are similar to those common to L1 dominant bilinguals (Poplack, 1980), 2L1 adult bilinguals (Lipski, 1985), and 2L1 child bilinguals (Zentella, 1997), which may serve to elevate the predominantly deficit perspective of L2 learner CS. Further research, especially investigations involving naturalistic observations and spontaneous speech, is crucial for complementing and validating previous experimental designs in order to determine the role of proficiency in the grammatical patterns of L2 learner CS.

Research has since moved towards a more sociolinguistic approach, with a focus on CS as social interaction. This alternative perspective has done much to ameliorate pejorative and stigmatized status formerly connected with CS. Sociolinguistic studies tend to envision CS more positively, as a communicative strategy (Reershemius, 2001) with significant discourse-related functions (Liebscher & Dailey-O’Cain, 2004; Nzwanga, 2000; ) and as a pedagogical tool in the classroom (Evans, 2009; Majer, 2009; Ustunel & Seedhouse, 2005).

In an exceptional critical literature review of classroom CS, Martin-Jones (1995) documents three phases of research starting in the 1970’s. The first phase, from roughly 1970-1980, consisted of research that responded to educational concerns about the role of Spanish and English in the classroom and drew its data from the Spanish-speaking immigrant population in the United States. During the second phase, from 1980-1990, teacher CS and the discourse functions of each language took on a more prominent role. In the third phase, from 1990-1995, researchers began to use a more ethnographic approach to research on CS in the classroom, including detailed analyses of teaching and
linguistic/cultural backgrounds. More recently, research on classroom CS has witnessed a broadening of scope, as it extends to a greater variety of multilingual contexts. Nevertheless, classroom CS research has focused mainly on teachers, high school students, college learners, and adult learners).

**Child L2 Learner Code-Switching**

Similar to adult CS, early research on child CS concentrated on 2L1 child bilinguals and their grammatical patterns, in order to test and identify code-switching constraints. Even when researchers expanded the scope of their studies to include the functions and conversational strategies of CS in such diverse situations as the family (Nicoladis & Secco, 2000), ethnic communities (Zentella, 1997), peer groups (Paugh, 2005; Kyratzis, 2010), and classrooms (Martínez, 2010), these linguists still sought out 2L1 bilingual children. Historically, the majority of the limited existing literature framed L2 learner CS as errors, deviations and cross-linguistic influence. Subsequently, much less is understand with regard to child L2 learner CS.

Child L2 learner CS can be found in several related yet distinct educational settings. First, classrooms where the classroom language and the child’s L2 is that of the surrounding community’s majority language, such as English language learners in the United States. Significant formative research has been done on these child L2 learners (for example, Martínez, 2010; Reyes, 2001, 2004). Another slightly different educational setting, and the context of the present study, is a classroom where the target language differs from the society’s majority language; this includes foreign language education but not exclusively. In two-way immersion classrooms, for example, the target language
often differs from the societal majority language, yet this target language is a foreign language for only some of the students, e.g., the L2 learners of the target language but not the 2L1 bilinguals. Research on these ‘foreign’ language classrooms have outlined several patterns of child L2 learner CS. In a comparative analysis of elementary level students in a French immersion school in Spain and a bilingual French/Italian program in Italy, Moore (2002) reports that CS in both situations promotes the process of language learning, suggesting that this may be especially true of contexts where the L2 is the medium of instruction for the learning of academic content. Similarly, Martin-Beltran (2010) provides examples of how L2 learners code-switch during an interactive storytelling and writing project in a 5th grade dual immersion Spanish/English classroom. In her analysis, language learning affordances were exhibited through repaired lexicon and syntax from language gaps that turned into learning opportunities, refined academic language skills, heightened metalinguistic awareness, crosslinguistic word analysis, creativity, analysis of multiple meanings, and interpretation of word choice. Martin-Beltrán recounts one example of how CS provided a learning opportunity in a paired writing task, where Iliana transcribed Heather’s story in a letter and they repaired a mistake in the lexicon together through the use of both languages. When Heather reached a “lexical dilemma”, Heather inserted the word in English (nontarget language) with a rising intonation to signal questioning and request help from Iliana (p. 262). And, in Brunei Darussalem, Martin (1999) describes how students in a 4th year primary classroom with English as an instructional medium use English/Malay CS in order to negotiate meaning surrounding monolingual English geography texts. While the
previous studies all demonstrate the academic benefits of classroom CS, Potowski’s (2004) case study from a two-way immersion program illustrates how students alternate languages according to sometimes competing L2 learner identity investments, such as being perceived as a “well-behaved student” or “popular and funny” (p. 95).

The aforementioned studies all deal with naturalistic data on child L2 learner CS, spontaneous speech in the classroom setting, but a single exception to this trend is found in Cheng’s (2003) analysis of Malaysian pre-school children involving three elicitation tasks: 1) reciting a rhyme, 2) retelling a story, and 3) telling a favorite story. Cheng points out that children switch between Malay/Chinese particles for a variety of functions depending on the topic and context of the conversation, including: adding a sense of persuasion, adding a sense of emphasis, creating a sense of comradeship, softening the effect of a sentence, or closing one clause of an utterance (p. 69-70).

Since Cheng’s (2003) study is one of very few existing elicitation task studies on L2 learner CS, further research along these lines would substantiate the findings from classroom data. Additionally, except for this sole study, the research focuses on older children in 4th or 5th grade and the discourse-related and identity-related functions of CS. Moreover, none of these studies has touched upon the grammatical patterns of CS so prevalent in studies on adult dual L1 bilinguals. The present study, then, addresses several of these existing gaps in the research literature by presenting an analysis of both functional and grammatical patterns of child L2 learner CS in a kindergarten Spanish immersion class.
Methods

Setting and Participants

The context of the present study was the Spanish immersion program in a dual immersion school in Tucson, Arizona that offered Spanish, French and German immersion classes for children from preschool (age 3) through 5th grade at the time of the study. The school’s language immersion program is designed so that the preschool and kindergarten classes (ages 3-5) receive instruction in the chosen target language (Spanish, French, or German) with the same teacher for the entire day except for lunch, recess, and activities which took students outside of the academic classroom setting, such as music or physical education. Once students enter 1st grade, they are taught in English for half the day, while the rest of the day’s instruction is held in the chosen target language, with the aforementioned exceptions.

Participants in the study included 30 students from kindergarten (4 female, 4 male), 1st grade (7 female, 4 male) and 2nd grade (5 female, 6 male) Spanish immersion classes. Within these classes, there were twenty-four L2 learners of Spanish (12 female, 12 male) and six Spanish/English 2L1 bilingual (4 female, 2 male) students. Students were determined to be 2L1 bilinguals if they had acquired Spanish before the age of three; this was determined through interviews with parents on their children’s patterns of language use and language background. Of the six 2L1 bilingual students, two were born in Mexico, three had a mother who was born in Columbia, and one was born in Ecuador. All of the six 2L1 bilingual students held Spanish as one of their home language, although the students varied in the amount of each language used. The two Mexican
natives spoke almost only Spanish at home, while the other students reported speaking a mix of both languages.

**Data Collection**

For the data collection of the present study, I engaged in over 150 hours of participant observation, attending students’ classes, closely observing and taking notes on student linguistic behavior, and taking on the role of a teacher’s aid when helpful. The core dataset analyzed in this paper includes a total of 12 hours of transcribed audio-recorded data from classroom observations in the kindergarten, 1<sup>st</sup> and 2<sup>nd</sup> grade Spanish immersion classes. Several microphones were placed at different ‘centers’ stationed around the rooms in order to pick up student speech. These recording were later combined and transcribed into a single transcription. Each recording represents an entire day of Spanish language instruction for the class. Notably, the kindergarten students were in their Spanish classroom for 6 hours while the 1<sup>st</sup> and 2<sup>nd</sup> graders were in their classrooms for 3 hours each, due to the daily schedule described above.

**Data**

The primary unit of analysis for the present study is a token of CS, a term which is highly debated within the field and defined diversely throughout the field. Some structurally-oriented linguistic analyses differentiate between *intrasentential* CS, switching below sentential boundaries, and *intersentential* CS, switching at sentential boundaries. This distinction is problematic due to the implication that spoken language is indeed separated into ‘full’ sentences followed by other ‘full’ sentences. Alternatively, CS has been identified as being either *intra-turn* (1), within an individual’s
conversational turn of speech, or *inter-turn* (2), across conversational turns by different speakers. ‘Turns’ and ‘turn-taking’ as a central aspect of the organization of conversation was taken up most thoroughly in conversation analysis (Sacks, 2004) and therein defined as the tendency for one party to speak at a time (p. 35). Terms vary across disciplines and include ‘turn at talk’ (also, turn-at-talk) employed commonly by those following conversation analysis (Sacks, 1992) and turn of speech in the area of pragmatics (Ellis, 1994; Levinson, 1983). The meaning of these terms is similar, and in this case, conversational turn is chosen for its more general reference to a turn which may or may not include verbal speech; after all, much can be communicated through gestures, glances, hand motions, etc. For this reason, discourse analysis work on communication through various forms of media and technology tend to prefer the term ‘conversational turn’ (Clarà & Mauri, 2009). In the present study, a conversational turn or ‘turn’ is identified by the (verbal or non-verbal) communication of a participant(s) before interrupted by (verbal or non-verbal) communication from another participant(s), a long pause, or another event.

(1) LILY:  
*Porque yo ir en el baño y* wash *mis manos.*

*Translation: Because I go in the bathroom and *my hands.*

(2) JIM:  
What is number 5?  
MATTHEW: ¿Qué es numero dos? ¿Qué es numero dos?

*Translation: What is number two? What is number two?*

Throughout the study, students did frequently participate in *inter-turn* switching (as in 2), where a student’s Spanish turn was followed by another student’s English turn; this is referred to as non-reciprocal CS (Zentella, 1997) or preference-related switching (Auer,
1995) in the literature. Yet, it differs so significantly from *intra-turn* CS that this type of language alternation is not always accepted as CS by scholars and is rather more often analyzed as language choice (see Christoffersen, 2013, for example). Thus, within the realm of the present study, the intra-turn switch in (1) is an included token of CS but the inter-turn switch in (2) is not.

Many linguists further delimit the definition of CS to exclude single-word switches, since research has shown that single-word switches are most often lexical borrowings (Budzhak-Jones, 1998, Poplack & Meechan, 1995, Shin, 2002). The present study includes these tokens, following Reyes (2001) who demonstrates that from a developmental perspective, the one-word switches provide a site for analysis of the children’s developing bilingual skills and bilingual competence. Independent of whether these switches are borrowings or code-switches, the analysis concentrates on how the children use these switches as a tool to transition from one language to another and develop bilingual competence. Incorporating the definition of CS as any intra-turn switch (single-word or multi-word), CS is infrequent in proportion of the entire corpus, comprising .2% of total turns, or 85 tokens out of 477 total turns. This is comparable with other similar research (3% in Shin, 2002 and 1% in Poplack et. al., 1988).

**Theoretical Framework & Data Analysis**

The theoretical underpinnings of the present study follow a mixed methods approach outlined by Zentella (1990) for the integration of qualitative and quantitative methods of analysis in order to provide a more complete view of child code-switching patterns. These mixed methods include the tabular representation and quantification of
certain grammatical switch points and strategies, combined with ethnographic methods of data collection and conversation analysis.

Each individual code-switch was coded according to 1) whether the switch adhered to the equivalence constraint, 2) the grammatical category/categories of the code-switch, and 3) whether a code-switch could be distinguished as performing a particular conversational strategy. The framework for these analyses was based on the equivalence constraint as outlined by Poplack (1980), the 19 grammatical categories determined by Zentella (1997), and the 22 conversational strategies suggested by Zentella (1997).

**Grammatical Patterns of Code-Switching**

**Description of the grammatical analysis.** The grammatical patterns of CS by child L2 learners of Spanish and dual L1 bilinguals were analyzed according to three related frameworks: grammatical category of the code-switch, adherence to the equivalence constraint, and a comparison of the frequency of grammatical switch-points. An analysis of the five least frequent grammatical switch-points provides for comparison with data on other 2L1 bilingual children (Zentella, 1997).

Analysis of the grammatical category of the individual code-switches followed Zentella’s (1997) classification of 19 grammatical categories. Zentella’s (1997) framework actually expands to 28 different categories including all subcategories. For instance, the noun/noun phrase category includes the subcategories: object nouns, object noun phrases, subject nouns, and subject noun phrases. While these subcategories were
coded in the current study’s data, a more general description was found to be preferable in describing and analyzing the results.

Table 1. Grammatical Categories (Zentella, 1997, p. 118-119)

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-</td>
<td>Full sentence</td>
</tr>
<tr>
<td>2-</td>
<td>Noun/noun phrase</td>
</tr>
<tr>
<td>3-</td>
<td>Independent clauses</td>
</tr>
<tr>
<td>4-</td>
<td>Subordinate clauses</td>
</tr>
<tr>
<td>5-</td>
<td>Adverb/adverbial phrases</td>
</tr>
<tr>
<td>6-</td>
<td>Verb/verb phrases</td>
</tr>
<tr>
<td>7-</td>
<td>Prepositional phrase</td>
</tr>
<tr>
<td>8-</td>
<td>Filler/hesitation</td>
</tr>
<tr>
<td>9-</td>
<td>Adjective/adjectival phrase</td>
</tr>
<tr>
<td>10-</td>
<td>Imperative</td>
</tr>
<tr>
<td>11-</td>
<td>Tag</td>
</tr>
<tr>
<td>12-</td>
<td>Conjunctions</td>
</tr>
<tr>
<td>13-</td>
<td>Relative clause</td>
</tr>
<tr>
<td>14-</td>
<td>Exclamation</td>
</tr>
<tr>
<td>15-</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>16-</td>
<td>Personal pronoun</td>
</tr>
<tr>
<td>17-</td>
<td>Predicate adjective</td>
</tr>
<tr>
<td>18-</td>
<td>Determiner</td>
</tr>
<tr>
<td>19-</td>
<td>Preposition</td>
</tr>
</tbody>
</table>

The second framework for the analysis of grammatical code-switches was based on Poplack’s (1980) ‘equivalence constraint’. This ‘constraint’, which Poplack refers to as a strong tendency, notes that the adult dual L1 bilingual speakers in her study tended to code-switch at points in the sentence that maintain the grammaticality of both languages.

Figure 1. Example of equivalence constraint (Poplack, 1980, p. 586)

Lastly, an analysis was done in order to tabulate all infrequent syntactic boundary switch points in the data. Zentella (1997) found that in her data, New York Puerto Rican children’s code-switches occurred most infrequently at the boundary points: adjective
phrase, pronoun, predicate adjective, determiner, and preposition. Zentella (1997) explained that in her data children code-switched at infrequent syntactic boundaries for two disparate reasons: 1) low proficiency and ignorance of grammaticality constraints, or 2) high proficiency and more experience managing code-switching in grammatically permissible ways. For this reason, it is useful to analyze whether infrequent syntactic boundary switch points by students in the Spanish immersion program coincide with adherence to the ‘equivalence constraint’.

**Results of grammatical analysis.** The results for the grammatical category of individual code-switches are separated according to 2L1 Spanish/English bilinguals and L2 learners of Spanish. It is important to note that when code-switches fell over various grammatical categories, those switches were coded as both in order to ensure description of all grammatical categories represented. Due to this slight duplication, there are four more ‘code-switches’ than the actual number of code-switches in the dataset.

<table>
<thead>
<tr>
<th></th>
<th>2L1 Spanish/English bilinguals (%)</th>
<th>L2 learners of Spanish (%)</th>
<th>All students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n)</td>
<td>(n)</td>
<td>(n)</td>
</tr>
<tr>
<td>Full sentence</td>
<td>7.7 1</td>
<td>7.9 6</td>
<td>7.9 7</td>
</tr>
<tr>
<td>Noun/noun phrase</td>
<td>69.2 9</td>
<td>47.4 36</td>
<td>50.6 45</td>
</tr>
<tr>
<td>Subordinate clause</td>
<td>0.0 0</td>
<td>2.6 2</td>
<td>2.3 2</td>
</tr>
<tr>
<td>Adverb/adverbial clause</td>
<td>7.7 1</td>
<td>1.3 1</td>
<td>2.3 2</td>
</tr>
<tr>
<td>Verb/verb phrase</td>
<td>7.7 1</td>
<td>22.4 17</td>
<td>20.2 18</td>
</tr>
<tr>
<td>Prepositional phrase</td>
<td>0.0 0</td>
<td>1.3 1</td>
<td>1.1 1</td>
</tr>
<tr>
<td>Adjective/adjectival phrase</td>
<td>0.0 0</td>
<td>13.2 10</td>
<td>11.2 10</td>
</tr>
<tr>
<td>Imperative</td>
<td>7.7 1</td>
<td>2.6 2</td>
<td>3.4 3</td>
</tr>
<tr>
<td>Interrogatives</td>
<td>0.0 0</td>
<td>1.3 1</td>
<td>1.1 1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.6 13</strong></td>
<td><strong>85.4 76</strong></td>
<td><strong>100.0 89</strong></td>
</tr>
</tbody>
</table>
Table 2 makes it possible to compare the two groups; however, there are only 5 Spanish/English 2L1 bilinguals compared to 25 L2 learners of Spanish. So, while it is interesting and relevant to compare these groups, it is not possible nor advisable to do so statistically. Nevertheless, the majority of 2L1 bilingual CS occurs primarily in the noun/noun phrase grammatical category (69.5%). Although the majority of L2 learner code-switches similarly occur in the noun/noun phrase grammatical category (47.4%), L2 learner switches vary considerably more and occur across a wider variety of grammatical categories, including verb/verb phrase (22.4%), adjective/adjectival phrase (13.2%), and full sentence (7.9%). Overall, the top five grammatical categories where students in this Spanish immersion program code-switch are: noun/noun phrase, verb/verb phrase, adjective/adjectival phrase, full sentences, and imperatives.

Table 3 makes it possible to compare the top five grammatical categories of code-switches with syntactic hierarchies found in the large-scale corpus data of Poplack (1980), Lipski (1985), and Zentella (1997) to the current study. Although the data

<table>
<thead>
<tr>
<th>Category</th>
<th>Poplack 1980 (n = 1,835)</th>
<th>Lipski 1985 (n = 2,319)</th>
<th>Zentella 1997 (n = 1,685)</th>
<th>Christoffersen 2014 (n = 89)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tag</td>
<td>22.5</td>
<td>16.13</td>
<td>23</td>
<td>Noun/noun phrase 50.6</td>
</tr>
<tr>
<td>Sentence</td>
<td>20.3</td>
<td>15.67</td>
<td>Noun 14</td>
<td>Verb/verb phrase 20.2</td>
</tr>
<tr>
<td>Noun</td>
<td>9.5</td>
<td>11.19</td>
<td>Ind. Clause 12</td>
<td>Adjective/phrase 11.2</td>
</tr>
<tr>
<td>Object NP</td>
<td>7.6</td>
<td>9.76</td>
<td>Object NP 6</td>
<td>Full sentence 7.9</td>
</tr>
<tr>
<td>Interjection</td>
<td>6.3</td>
<td>8.27</td>
<td>Ind. Clause &amp; Conjunct. 6</td>
<td>Imperative 3.4</td>
</tr>
</tbody>
</table>

Table 3 provides a comparison of syntactic hierarchies across studies.
represent significant differences in terms of population, year, and data collection, two of the top five grammatical categories found by each researcher are comparable to the data from this study: noun/noun phrase and full sentence. Significantly, the remaining three grammatical categories in the current study’s data are unique as compared to the other previous studies. This prompts the question whether code-switching in the grammatical categories of verb/verb phrase, adjective/adjectival phrase or imperative is characteristic of L2 learners, and furthermore whether these switches adhere to the equivalence constraint. It is possible that both age and proficiency plays a role here, and these unique grammatical categories may be propagated by young L2 learners.

Table 4. Percentages of equivalent/non-equivalent/transfer code-switches (n) by speaker group

<table>
<thead>
<tr>
<th></th>
<th>2L1 Spanish/English bilinguals (%)</th>
<th>L2 learners of Spanish (%)</th>
<th>All students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Equivalent</td>
<td>100.0</td>
<td>74.1</td>
<td>89.4</td>
</tr>
<tr>
<td>- Equivalent</td>
<td>0.0</td>
<td>9.4</td>
<td>9.4</td>
</tr>
<tr>
<td>Transfer</td>
<td>0.0</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>14.1</td>
<td>85.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As Table 4 shows, overall students in the Spanish immersion program adhere to the equivalence constraint at a very high rate (89.4%). Spanish/English 2L1 bilinguals produce a surprising 100% equivalent code-switches; however this maybe be due in part to the small number of balanced bilingual participants (5) and the similarly small quantity of their individual switches (12) which amount to only 14.1% of the total data. Below see an example of an equivalent CS by a 2L1 bilingual (3) and L2 learner (4) as well as a non-equivalent CS by an L2 learner (5) from the study’s corpus.
Examples of Equivalent CS

(3) NATHAN: But in a swimming pool **puede**.
   *Translation: you can*

(4) LAURA: **Señora, ¿dónde está mi lunchera?** I can’t find my lunch.
   *Translation: Mrs., where is my lunch box?*

Examples of Non-equivalent CS

(5) CARLA: **Yo está** coming.
   *Translation: I am* [3rd person sing.]

However, it is still remarkable that 74.1% of L2 learner code-switches are equivalent, especially since the five NYPR children in Zentella’s (1997) study adhere to the equivalence constraint from 74.5% to 95.6% of the time. In light of this comparison, it seems that L2 learners are adhering to the equivalence constraint overall at a rate comparable to other 2L1 bilinguals. Yet it does prompt the question of whether L2 learners create non-equivalent switches more often at infrequent syntactic boundaries.

Table 5. Percentage of infrequent syntactic boundary switch points by speaker group

<table>
<thead>
<tr>
<th></th>
<th>2LI Spanish/English bilinguals</th>
<th>L2 speakers of Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>** (%)**</td>
<td>** (n)**</td>
<td>** (%)**</td>
</tr>
<tr>
<td>Pronoun</td>
<td>0.0</td>
<td>1.21</td>
</tr>
<tr>
<td>Adjective</td>
<td>0.0</td>
<td>2.35</td>
</tr>
<tr>
<td>Determiner</td>
<td>0.0</td>
<td>1.21</td>
</tr>
</tbody>
</table>

Furthermore, Table 5 shows that while 2L1 bilinguals do not code-switch at infrequent syntactic boundaries, L2 learners switch only minimally at infrequent syntactic boundaries with a total of four instances of code-switches represented by all 25 students. Surprisingly, of these four infrequent syntactic boundary switch points, only one is non-equivalent, as can be seen in the examples below. Ben’s statement is non-equivalent.
according to Poplack (1980), based on the fact that English and Spanish have different rules for adjective order, so ‘real tijeras’ would necessarily be ungrammatical in one of the languages.

Equivalent Infrequent Syntactic Boundary Switch Points
(6) ETHAN: Sra., una placa es a badge?
(7) JENNA: Este es como it works.
(8) KAYLA: Está ready.

Non-equivalent Infrequent Syntactic Boundary Switch Point
(9) BEN: Yo tengo real tijeras.

Nevertheless, this is the only instance of a non-equivalent switch resulting from an infrequent boundary switch point, out of a total of only 9.4% non-equivalent code-switches by L2 learners. The highly equivalent and patterned nature of 2L1 and L2 bilingual children contradicts theories which represent child and L2 learner CS as code-mixing (Muysken, 1995) or not adhering to grammatical properties of the languages. Instead, these young Spanish immersion students demonstrate the ability to code-switch while adhering to the grammatical rules of both languages.

Analysis of Conversational Strategies of Code-Switching

Description of the analysis of conversational strategies. The analysis of CS as a conversational strategy was also based on the framework devised by Zentella (1997) and altered based on my own understanding of the code-switching practices relevant to the current dataset to include 1) footing, 2) emphasis/clarification, 3) cross-linguistic circumlocution (CLC). The first of three broad categories of conversational strategies,
“footing,” is based on Goffman’s (1979) notion that “a change in footing implies a change in the alignment we take up to ourselves and others present as expressed in the way we manage the production or reception of an utterance (p. 5). The second category, emphasis/clarification, describes an instance where an individual switches languages in order to clarify a given statement or to explain or accentuate their point.

The third category is a reconceptualization of what Zentella (1997) defines as “crutch-like code-switching.” Zentella (1997) uses this term to refer to individuals who switch to compensate for a lexical gap of knowledge or a momentary memory lapse. While the concept itself is comprehensible, I disagree with the label of a ‘crutch’ which insinuates and indeed perpetuates a negative, deficit perspective of this code-switching practice. After all, every speaker (L1 or L2) has memory lapses, and there is no one who has an infinite vocabulary. Instead, I argue that students are actually using their knowledge of two languages in a skillful way to circumnavigate words that they may have forgotten or not yet learned. Additionally, this terminology associates “crutch” with a disability in a way that disability studies researchers would find problematic. For this reason, the present analysis defines these types of code-switches as “cross-linguistic circumlocution” (CLC).

Below are a series of examples of code-switches from the present study’s corpus, divided according to these three categories of conversational strategies.

I. Footing
   1. Declarative/question shift
(10) STEPHEN: ¿Qué es esposas? Oh yeah, so they can’t move their hands.

Translation: What is* [3rd person sing.] handcuffs?

2. Role shift

(12) BEN: The eyeball call! Este sí, Brian.

Translation: That one, yes,

3. Quotations

(13) KAYLA: Issac said que [laugh] Isaac dice que es mi tarea.

Translation: that [laugh] Isaac said that it is my homework

3. Aggravating requests

(14) STEPHEN: Can we do it again? Aw. ¿Por qué?

Translation: Why?

4. Attention attraction

(15) STEPHEN: Look at, Alison, esta.

Translation: this

II. Clarification and/or Emphasis

1. Translation

(16) KAYLA: Issac said que [laugh] Isaac dice que es mi tarea.

Translation: that [laugh] Isaac said that it is my homework.

(17) INES: Sra., ¿dónde está mi lunchera? I can’t find my lunch.

Translation: Mrs., where is my lunchbox?

2. Parallelism

(18) BRIAN: Stephen, are you going to be ladrón? Who’s going to be ladrón?

Translation: robber/theif

ETHAN: Sorry, Stephen. [after Stephen falls, accidentally pushed by Ethan] How about I be ladrón?

Translation: robber/theif

III. Cross-Linguistic Circumlocution (CLC)

1. General Cross-Linguistic Circumlocution (CLC)
(19) ETHAN: Sra., ¿una placa es a badge?
Translation: Mrs., is a badge

(20) STEPHEN: ¿Qué es esposas? Oh yeah, so they can’t move their hands.
Translation: What are handcuffs?

**Results of the analysis of conversational strategies.** As previously mentioned, not all code-switches were assigned to a conversational strategy; rather this was determined based on their resemblance to examples from the existing scholarly literature on the functions of CS (Reyes, 2001, 2004; Zentella, 1997). The following table shows that only 16 total switches or 18.8% of code-switches were assigned a conversational category. This rate is lower than the 48% of switches coded by strategy by Zentella (1997, p. 93). This is due to the smaller corpus, 24 hours compared to 103 hours (Zentella), which necessitates a conservative coding of CLC switches in particular. Future studies including an expanded corpus of child 2L1 and L2 learner CS would enable a higher percentage of coded conversationally strategic switches. The remaining 69 code-switches remain for future qualitative analysis of the functions of CS.

Table 6. Percentage of individual switches (n) assigned to a conversational strategy (strategic switches)

<table>
<thead>
<tr>
<th>+ Strategy (%)</th>
<th>- Strategy (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>2L1 bilinguals</td>
<td>33.3 4</td>
</tr>
<tr>
<td>L2 learners of Spanish</td>
<td>16.6 12</td>
</tr>
<tr>
<td>All students</td>
<td>18.8 16</td>
</tr>
</tbody>
</table>

Table 7. Percentages of individual switches (n) per conversational strategy by speaker group
These 16 code-switches, which were determined to be strategic switches, covered a variety of conversational strategies. In the past, the predominant paradigm has viewed L2 learner CS as filling a gap in language knowledge, framing these switches as errors or cross-linguistic interference. However, Table 7 shows that L2 learners switch strategically for footing and clarification/emphasis as well as for CLC. It is probable that CLC account for a larger proportion of the data, since the present data were coded conservatively. Due to the size of the corpus, and thus the limited knowledge of the extent of student vocabulary, a CLC was only coded on the basis of two criteria: 1) the student requested a word or 2) the student previously used the other word in the recordings (19, 20). Zentella (1997) in comparison was able to delegate more single-word switches to this category, since her extensive corpus allowed for a higher degree of certainty on which words were unknown and unused in individual languages. Still, these findings do clearly show that at least 11.8% of all code-switches, and 62.5% of strategic code-switches, exhibit strategies beyond that of CLC. In fact, 2L1 bilinguals participate in CLC, which suggests that it is one of several linguistic resources available to 2L1 and L2 bilinguals.

Conclusions & Discussion
The findings of the data from this research endeavor have provided a very promising basis for continued investigation into this line of inquiry regarding grammatical and functional patterns of child CS. Based on the analysis of grammatical categories, L2 learners’ switch-points were more varied than 2L1 bilinguals, including adjective/adjectival phrases, verb phrases and imperatives as common switch points. An analysis of the equivalence constraint showed that even though L2 learners violated the equivalence constraint more often than 2L1 bilinguals, the L2 learners violated the equivalence constraint at a rate comparable to NYPR (2L1 bilingual) children (Zentella, 1997). Similarly, although L2 learners switched more often at infrequent syntactic boundaries, this was minimal and usually grammatical (75%). (See summary of results in Table 8.) Still, it is important to note that this is different from the 100% grammatical switches of the 2L1 students.

An analysis of the discursive functions of CS demonstrated that at least 11.8% of individual code-switches could be assigned to conversational strategies beyond that of CLC. Both L2 learners and 2L1 bilinguals used code-switching for a variety of purposes including CLC, footing (for realignment and appeal), and clarification and/or emphasis. This is significant given the fact that L2 learners CS has historically been viewed as predominantly filling in for a gap in knowledge. (See summary of results in Table 8.)

Although L2 learner code-switches occur at more varied switch points and at infrequent syntactic boundaries, L2 learners adhere to the equivalence constraint at a high rate (74.1%). This may suggest that the young L2 learners in this early Spanish immersion program have a high level of grammatical knowledge (albeit probably
unconscious due to age) evidenced by their competency at producing grammatically code-switched sentences. Furthermore, although it is probable that L2 learners use mostly cross-linguistic circumlocution, these data show that L2 learners also use code-switching for footing (realignment/appeal) and clarification and/or emphasis. This shows that young L2 learners in this school use code-switching for more varied purposes than is commonly thought of students in immersion programs. From a functional perspective, there is simply no need to differentiate between CLC and other strategic uses of CS.

Altogether, these data present a strong case for the re-evaluation of CS within the second language/foreign language classroom as a strategic conversational tool used by L2 and 2L1 bilinguals. This is particularly relevant for dual immersion programs which are often characterized by a strong separation of languages (by such factors as time, setting, teacher, etc.) as well as language policies that advocate such linguistic partitioning. In fact, recent studies have critiqued such programs for “parallel monolingualism” instead of bilingualism (Fitts, 2006; Hayes, 2005; Lee, Bonnet-Hill, & Gillespie, 2008). A flexible bilingual pedagogy as presented by Creese & Blackledge (2010) allows for CS as a site for language learning and teaching as well as a site for identity work. In fact, it would seem that in forcing a parallel monolingualism on bilingual students, we are “squandering our bilingual resources” (Cummins, 2005, p. 585).

Crosslinguistic circumlocution (CLC), in particular, holds important implications for the language learning classroom, and its use in a flexible bilingual pedagogy would produce powerful reminders of students’ developing bilingual competencies. For instance, students could be encouraged to use the teacher and each other as a resource for
learning other languages. Instructors could also encourage students to draw connections between language in translating and multilingual projects. Exposing students to code-switching in music, art, and theatre as a beautiful and acceptable pattern of speech in multilingual communities is another way to counter powerful monolingual ideologies. Additionally, students are no longer limited to their individual communities or classroom settings. Even young students are familiar with technology which is a powerful tool to break down the barriers between other-language speaking communities, fostering an ability for students to teach one another about culture as well as their languages.

Ruiz (2010) details how many dominating discourses relate to language as a problem, especially those which relate to non-English-dominant students in the U.S. As an alternative, Ruiz proposes a reconceptualization of language-as-resource orientation, which validates, recognizes and appreciates students’ various linguistic resources. Fostering CLC as one of several types of strategic classroom CS is a powerful and practical way to reframe classroom code-switching as a resource.
Table 8. Summary chart comparing grammatical patterns per framework by speaker group

<table>
<thead>
<tr>
<th>Top 5 Grammatical Categories</th>
<th>2LI Spanish/English</th>
<th>L2 learners</th>
<th>All students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bilinguals (%)</td>
<td>of Spanish (%)</td>
<td></td>
</tr>
<tr>
<td>Noun/noun phrase</td>
<td>69.2 9</td>
<td>47.4 36</td>
<td>50.6 45</td>
</tr>
<tr>
<td>Verb/verb phrase</td>
<td>7.7 1</td>
<td>22.4 17</td>
<td>20.2 18</td>
</tr>
<tr>
<td>Adjective/adjectival phrase</td>
<td>0.0 0</td>
<td>13.2 10</td>
<td>11.2 10</td>
</tr>
<tr>
<td>Full sentence</td>
<td>7.7 1</td>
<td>7.9 6</td>
<td>7.9 7</td>
</tr>
<tr>
<td>Imperative</td>
<td>7.7 1</td>
<td>2.6 2</td>
<td>3.4 3</td>
</tr>
<tr>
<td>Equivalence/Non-equivalent/Transfer</td>
<td>+ Equivalent 100.0 12</td>
<td>74.1 64</td>
<td>89.4 76</td>
</tr>
<tr>
<td></td>
<td>- Equivalent 0.0 0</td>
<td>9.4 8</td>
<td>9.4 8</td>
</tr>
<tr>
<td></td>
<td>Transfer 0.0 0</td>
<td>1.2 1</td>
<td>1.2 1</td>
</tr>
<tr>
<td>Infrequent Syntactic Boundary Switch Points</td>
<td>Pronoun 0.0 0</td>
<td>1.21 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjective 0.0 0</td>
<td>2.35 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Determiner 0.0 0</td>
<td>1.21 1</td>
<td></td>
</tr>
<tr>
<td>Conversational Strategies</td>
<td>Realignment 0.0 0</td>
<td>50.0 6</td>
<td>37.5 6</td>
</tr>
<tr>
<td></td>
<td>Clarification/Emphasis 50.0 2</td>
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References


