PAIR INTERACTION IN SPANISH LANGUAGE CLASSROOMS THAT ENROLL HERITAGE AND L2 LEARNERS

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ABSTRACT

A growing number of studies has shown that collaborative writing tasks facilitate second language (L2) development by providing learners with opportunities to focus their attention on language and to collaborate in the solution of their language-related problems (e.g., Choi & Iwashita, 2016; Storch, 2013; Swain & Lapkin, 1998; Williams, 2012). However, most of these studies have focused almost exclusively on L2 learners, and particularly on English as a second language learners. In an effort to address this gap and drawing from a sociocultural framework, this study investigated the interactions of Spanish heritage language (HL) learners and Spanish L2 learners enrolled in the same class.

Twenty-four intermediate-level learners of Spanish, organized in four HL-HL, four HL-L2, and four L2-L2 dyads, participated in the study. As part of their regular class work, they completed four collaborative writing tasks in pairs. Participants were also asked to individually complete a pretest and two posttests. The tasks and tests were intended to elicit the present subjunctive in nominal and adjectival clauses. The interactions between each pair were recorded and coded for the nature of the relationships the learners formed (Storch, 2002) and the quantity and quality of learners' deliberations about language choice, using Language Related Episodes (LREs) (Swain & Lapkin, 1998) as units of analysis.

Results showed that the most common type of patterns of interaction the learners developed was collaboration. Moreover, three pairs displayed a dominant/passive pattern of interaction and two pairs an expert/novice pattern. Results also indicated that overall, participants produced slightly more LREs focused on form than LREs focused on lexis.

Furthermore, results showed that whereas all pairs produced morphosyntactic LREs, they were more frequent in HL-L2 dyads. Lexical LREs occurred more often in L2-L2 dyads, and orthographic LREs occurred only in HL-HL dyads. With regards to learning gains, results revealed that six participants obtained high scores in all tests and did not show a score change from pretest to delayed posttest. Five of these participants were identified as HL learners. However, data also showed that 16 participants scored higher on their delayed posttest than they did on their pretest.

Overall, considering that most dyads developed a collaborative pattern of interaction and achieved learning gains after task-based interaction, the data suggest that despite the differences in linguistic and cultural backgrounds, learners in mixed and matched pairs provided assistance to one another and produced LREs associated with the target structure. These findings have important pedagogical implications and thus, future studies need to investigate the best practices for teaching HL and L2 learners simultaneously and the types of tasks that encourage collaboration.

DEDICATION

A mi familia, mi mejor regalo, los amo infinitamente.

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CHAPTER 1

INTRODUCTION

Hispanic-Americans are currently one of the fastest growing minority communities in the United States. In 2015, their population reached 57 million (Flores, 2017). As Hispanics immigrate to or are born in the United States, they bring their own cultures and languages which have influenced the way educators, researchers, and policy makers approach the field of education. These changing demographics are challenging traditional ideas concerning second language instruction around the country, particularly as more Spanish heritage language learners enroll in college (Showstack, 2012). As innovations have occurred in educational policy, K-12 and post-secondary institutions have attempted to support the Spanish speaking population in the United States with programs for individuals of limited or no English ability, and Spanish courses for bilingual students (Valdés, 1997). However, many current school and teacher practices have been ineffective in adequately meeting the needs of this population and narrowing the so-called Hispanic achievement gap (Carreira, 2016).

Despite the amount of research on Spanish heritage language (HL) learners, there is currently only a limited number of studies that examine the benefits and challenges of having these students enrolled in college classes designed mainly for students of Spanish as a second language (L2) (e.g., Bowles, 2011a, 2011b; Bowles, Adams, & Toth, 2014; Henshaw, 2015; Walls, 2018). In an effort to address this gap, this study documents interactions between Spanish HL and L2 learners enrolled in the same class to investigate the learning outcomes from having these two different kinds of learners work together. The results contribute to the field of Spanish heritage language and L2 education by demonstrating how teaching approaches might be refined to foster more effective

learning environments. Specifically, this study investigates the interactions of 24 learners (12 HL learners and 12 L2 learners) working in mixed (HL-HL, HL-L2, and L2-L2) dyads, during four collaborative writing tasks, in the context of two intermediate Spanish courses at a public university in the United States.

Group and pair work are teaching practices used in many L2 classes due to their claimed pedagogical benefits (Loewen & Sato, 2018; Sato & Lyster, 2012). In the field of second language acquisition, group and pair work are seen as techniques that can provide opportunities for learners to produce more output, to practice communicating using the target language, to notice their linguistic limitations, and to offer and receive assistance and corrective feedback (Donato, 1994; Storch, 2002, 2017; Storch & Aldosari, 2010; Swain, 2005; Swain & Lapkin, 1998). From a theoretical perspective, group and pair work have been supported by cognitive (Long, 1983, 1996) and sociocultural theories of language learning (Lantolf, 2000). As a framework, this study used sociocultural theory, which is based on the work of Vygotsky (1978). According to sociocultural theory, human cognitive development is inherently a social activity co-constructed dialogically (Vygotsky, 1978). One of the most central concepts to sociocultural theory is often referred to as "zone of proximal development," which Aljaafreh and Lantolf (1994) defined as: "the framework, par excellence, which brings all of the pieces of the learning setting together—the teacher, the learner, their social and cultural history, their goals and motives, as well as the resources available to them, including those that are dialogically constructed together" (486). Children's (novices) cognitive development takes place when they interact with a more able member of society (or expert) (e.g., parent, teacher, or even peer), who provides the novice with the appropriate level of assistance or

"scaffolding" (Donato, 1994). The assistance that the expert provides enables the novice to reach higher levels of development and independent functioning. Even though Vygotsky's theory focused on the cognitive development of children, Storch (2001b) argued that "the theory is applicable to all learning, child and adult, in formal and informal instructional settings, and in asymmetrical (i.e. expert-novice) as well as symmetrical (i.e. equal ability) groupings" (p.4).

Drawing from this theory, the primary aim of this investigation is to explore the patterns of interaction that each pair of participants developed during the four collaborative writing activities. A number of researchers have investigated the patterns of interaction that learners represent during group and pair work in L2 contexts (e.g., Choi & Iwashita, 2016; Kos, 2017; Rouhshad & Storch, 2016; Storch, 2001, 2001b, 2002). However, most of these studies have focused almost exclusively on English as a second language (ESL) learners. The present investigation extends the body of research on the nature of pair interaction, by examining the relational patterns of interaction established among Spanish HL-HL, HL-L2, and L2- L2 learner dyads enrolled in the same courses. I used Storch's (2001b) framework to analyze learners' patterns of interaction as the author has claimed that some specific patterns can lead to more peer scaffolding than others, which may be conducive to more learning gains. The study also aimed to examine links, if any, among patterns of dyadic interaction, the extent to which learners engaged in "language related episodes" (LREs) (Swain & Lapkin, 1998) during peer task-based interaction, the characteristics of the LREs that appeared, and target language development. The production and nature of LREs are significant in the present study

because they help to determine if learners reflect on their language use during task-based interaction, which may have an effect on interlanguage development.

In order to achieve these goals and explore the research questions, the present dissertation is organized as follows. Chapter 2 summarizes the most influential research on second language learning, peer interaction, and theoretical and empirical studies related to heritage language learners. Chapter 3 describes the theoretical framework of the study, which is sociocultural theory (SCT), and its central concepts including mediation, the zone of proximal development, and scaffolding. This chapter also reviews previous research regarding peer interaction conducted by sociocultural researchers.

Chapter 4 is devoted to the description of the research methodology and implementation of the tasks. It presents a description of the research design, as well as a detailed report on the methods of data collection (questionnaires, proficiency test, recording, and transcription of interactions), used in the study. In order to show how data were analyzed, Chapter 5 provides an explanation of procedures used to answer each research question. Chapter 6 summarizes and discusses the main findings. To conclude, Chapter 7 draws the present dissertation to a close by summarizing the major findings, discussing pedagogical implications, acknowledging some of the methodological limitations found in the study, and suggesting future lines of research.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of pertinent literature regarding second language learning and peer interaction, and it summarizes theoretical and empirical studies related to HL learners. The chapter ends with a summary of the most recent strategies for teaching in language classrooms that enroll HL and L2 learners and the limitations of previous research.

The Output Hypothesis

Krashen's (1980, 1982, 1985) writings on the input hypothesis claimed that the presence of comprehensible input that contains structures one stage beyond the learner's current level of competence (i+1) is the only necessary and sufficient condition for second language acquisition. According to Krashen (1980), acquisition takes place when "the acquirer is focused on the meaning and not the form of the utterance" (p. 170). Thus, the author supported the idea that conscious attention to form will lead to learning but not to acquisition, which according to him was a separate and distinct process. Based on this model, language is acquired when the learner receives comprehensible input that enables him/her to understand messages in the target language. Therefore, production indicates the outcome of the language acquisition device. In other words, output is not considered a part of the process of learning, but rather the product of it. Furthermore, according to Krashen's model, the most prevalent benefit of interaction is to receive comprehensible (i + 1) input from a more competent interlocutor; this input will eventually lead to the attainment of native-like competence.

Long (1983, 1985, 1996) investigated different ways in which input could be made comprehensible to the learner. For example, he argued that specific discourse moves such as clarification requests and comprehension checks helped to make input more comprehensible. However, Swain (1985) raised doubts about the validity of the input hypothesis. She observed that scores from listening and reading comprehension tests that a group of French immersion students obtained were similar to those that francophone students of the same age obtained. However, she also noticed that the speaking and writing abilities of the French immersion students were very different from those of their francophone peers, even though the French immersion learners received a great deal of comprehensible input. Based on those observations, Swain argued that teachers need to push learners "toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately" (Swain, 1985, p. 249). Thus, the concept of being "pushed" in output (comprehensible output) is parallel to that of the i+1 of comprehensible input.

Swain (1995) explained the different functions that output might play in second language learning. For example, she argued that comprehensible output helps learners to notice the gap between what they know and what is produced. According to her, the activity of producing the target language may focus the learner's attention on the parts of the discourse that are problematic. This awareness may lead the learner to generate new linguistic knowledge or consolidate their current existing knowledge (Swain, 2005, p. 474). Moreover, even though learners tend to notice gaps in their own knowledge during individual language production (Swain & Lapkin, 1995), collaborative output tasks increase the possibility that learners will notice the language forms or structures that they

do not know because their linguistic limitations may also be indicated by their interlocutor.

Furthermore, according to Swain (1995), another role that output might play in second language learning is that of hypothesis testing. The author claimed that from the learner's perspective, output may sometimes serve to test a hypothesis of how to say (or write) something. When learners notice a gap in their second language knowledge, they try to look for diverse linguistic possibilities to fill the gap and convey the intended message. During this process, they experiment with different language forms, which provides learners with the opportunity to test their current hypothesis about how the target language works. Central to this argument is the assumption that part of the second language learning development are the processes in which learners participate to modify their output in response to different feedback moves. As learners test different forms, they may adapt their output as a result of self-monitoring or their interlocutor's feedback, thus confirming or disproving their hypotheses.

Another function that output might play in second language learning is that it could encourage learners to reflect on language produced by others or the self, which based on the sociocultural theory (Vygotsky, 1978), mediates second language learning because speaking is seen as a tool of physical and cognitive regulation for an individual (Swain, 2005, p. 478). Metalinguistic reflection may occur with or without the assistance of an interlocutor; previous studies that have used think-aloud protocols have found that learners working on individual writing tasks also reflect on language (Swain & Lapkin, 1995). Thus, from a sociocultural point of view, output plays a significant role in second language learning.

To sum up, different second language learning theories including the sociocultural theory (Vygotsky, 1978), the interaction hypothesis (Long, 1996), and the output hypothesis (Swain, 1985, 1995, 2005) have supported a connection between interaction and language learning. Even though the sociocultural and cognitivist approaches present diverse focal points and perspectives, both theories are interested in studying and demonstrating how interaction might provide opportunities for language learning. Considering that the present study seeks to analyze the interactions of Spanish HL and L2 learners working in dyads in an authentic classroom, the principles of not only the output hypothesis (Swain, 1985, 1995, 2005) but also sociocultural theory have guided this investigation.

Learner-Learner Interaction

Learner-learner interaction in the form of pair and group work is a technique that has been adopted in many language learning classrooms due to its purported pedagogical benefits (Baralt, Gurzynski-Weiss, & Kim, 2016; Dobao, 2016; Kim, 2013; Loewen & Sato, 2018; Sato & Lyster, 2012). Second language acquisition research has supported the claims of the interaction hypothesis (Long, 1996), suggesting that conversational interaction is an essential condition for second language learning. When learners have the opportunity to interact using their L2, they receive comprehensible input and interactional feedback from their interlocutors in order to reach mutual comprehension (Gass, 1997; Long, 1996; Pica, 1994). All interactional processes have to be modified in some way, usually by means of clarification requests, comprehension checks, and repetition (Long, 1996). Swain (2005) explained that when communication becomes difficult, speakers tend to negotiate meaning, which provides an opportunity for

learners to modify their output. She argued that while trying to produce the target language, learners may consciously recognize their L2 linguistic limitations, which "pushes" them to develop their language skills. Schmidt (1990, 2001) claimed that negotiated interaction is useful for "noticing" gaps in interlocutors' interlanguage. This awareness leads to attention, a significant cognitive process implicated in second language learning (Gass & Varonis, 1994).

Moreover, through interaction, learners can also have psycholinguistic benefits. They can practice their language skills and experiment with the language in a non-threatening context, which is generally less carefully monitored than teacher-led interaction (Philp, Adams, & Iwashita, 2014). Thus, an increased comfort level may allow greater opportunities for learners to negotiate meaning. Sato (2013) conducted a factor analysis of learner questionnaire data to examine learners' perceptions of peer interaction. The author found that students had a preference for peer interaction compared to teacher-centered conversation because they did not feel worried about making mistakes while interacting in small groups with their classmates. Therefore, although peer interaction may not always promote L2 development in the same way as teacher-led discourse (Toth, 2011), it can be argued that, in many cases, it provides a comfortable context where students feel safe to negotiate meaning.

Language-Related Episodes in the Classroom

Central to research on learner-learner interaction is the concept of language-related episodes (LREs), which have also been referred to as form-focused episodes (FFEs) (Ellis, Basturkmen, & Loewen, 2001). Swain and Lapkin (1998) defined LREs as "any part of a dialogue in which learners talk about the language they are producing or

question their language use" (p. 326). Scholars have investigated LREs during collaborative work because when students show explicit attention to some aspect of the target language (e.g., semantics, syntax, phonology, and orthography), there are better opportunities to facilitate L2 acquisition (Norris & Ortega, 2000). From a sociocultural perspective, LREs are important for language learning because learners can practice what Swain (2006) refers to as "languaging": the process of shaping knowledge or building new knowledge by using language as a source to analyze, think, and talk about language (p. 89).

In several studies, researchers have investigated the frequency in which LREs address a particular aspect of language such as pronunciation, vocabulary, and grammar or the impact that LREs have on learning. Some studies on collaborative dialogues have shown that L2 learners focus particularly more on lexical than on grammatical features when carrying out pair or small group tasks (e.g., Bowles, Adams, & Toth, 2014; Leeser, 2004; Williams, 2001). Other studies have found that the incidence and outcomes of LREs during peer interaction depend on different factors such as learners' proficiency (Watanabe & Swain, 2008) and task type and modality (writing vs. oral) (e.g., García Mayo & Azkarai, 2016; McDonough, Crawford, & De Vleeschauwer, 2016).

In sum, prior research has suggested that tasks that can be completed during pair and group work promote learners' negotiation of meaning and form, which generates learning opportunities through attention to specific aspects of the target language. The present study similarly explores negotiation of meaning and form through the production and resolution of LREs during peer interaction but expands the existing research by investigating to what extent HL and L2 learners benefit from such interactions.

Learner-Learner Interaction and L2 Development

A number of studies have provided empirical evidence to suggest that learner-learner interaction can promote L2 learning (e.g., Adams, Nuevo, & Egi, 2011; Sato & Ballinger, 2016; Storch & Aldosari 2013). For example, Sato and Viveros (2016) carried out a classroom-based, quasi-experimental study to examine the relationship between interactional moves and collaborative patterns in peer interaction and their effect on L2 development. Participants were 53 English as a foreign language (EFL) learners from Chile, who were divided by the school into low and high proficiency level classes. Students completed four different communicative group-work activities in which they used the past tense. Transcripts and analyses of the interactions revealed that students in the lower proficiency group exhibited greater collaboration and negotiation of form and meaning than those in the higher proficiency group. Furthermore, the lower proficiency learners modified their utterances more frequently than the higher proficiency learners after receiving feedback from their peers. The authors argued that even though this study did not imply that "learners are able to develop their language skills without the teacher's support" (p. 108), it provided evidence to suggest that many students, especially low proficiency learners, can gain linguistic knowledge from interacting with partners.

Another study that supports the idea that peer interaction can facilitate L2 development was carried out by García Mayo and Azkarai (2016). The authors examined the impact of task modality on LREs and the level of engagement in oral interaction among 44 Spanish-Basque bilinguals who were EFL learners. Participants in the study worked in pairs to complete four collaborative tasks. Two of the tasks required the production of written output and the other two required oral output. Transcripts of

interactions pointed to the relevance of task modality on the incidence, nature, and outcome of LREs. The authors found that the participants generated and resolved more LREs in the writing tasks than in the oral tasks. They believed that participants "may have felt more concerned about making errors" (p. 256) when they were asked to submit a final written product. Moreover, in the study, written activities promoted students' focus on form while oral activities promoted focus on meaning. The authors explained that writing requires higher levels of accuracy and that students may be aware of the fact that "errors are less likely to be overlooked" (p. 256) when they have to present a final written version of their work. García Mayo and Azkarai's (2016) findings suggest that including a written component in collaborative tasks may lead students to produce more LREs and consequently, more negotiation and more explicit attention to form, which ultimately may have a positive impact on L2 acquisition (Norris & Ortega, 2000). For foreign language teachers, these findings are relevant as they suggest the importance of incorporating different tasks modalities when planning collaborative tasks.

Heritage Language Learners

Even though most of second language acquisition research on interaction has focused on non-native speakers or native speakers, a number of studies have started to investigate interactions that involve HL learners. As a result, it is important to highlight some of the differences and similarities between HL and L2 speakers.

Cummins (2005), explained that the term *heritage language* was coined in Canada with the inception of the Ontario Heritage Languages Programs in 1977. According to the author, the term became popular in the U.S. during the 1990s when scholars started to use it in the context of language policy. The author stated that in the

U.S., the term "refers to the language of immigrant, refugee, and indigenous groups. In principle, this includes all languages including English (…) but in practice, the term is used to refer to all languages other than English" (p. 586). Cummins described heritage language speakers as individuals who either learned the language as their first language or who have some "heritage" connection to the language (p. 586). Similarly, Beaudrie and Fairclough (2012) explained that the term *heritage language* is used to refer to minority languages, that is, languages other than English. Hornberger (2005) argued that heritage language "is a more neutral and inclusive term" since it does not have the stigma associated with other words such as *indigenous*, *immigrant*, or *ethnic* (p. 102). Furthermore, Beaudrie and Fairclough (2012) stated that *heritage language* has more positive than negative connotations because the expression suggests the inheritance of "a cultural and linguistic patrimony" (p. 6).

Definitions of heritage speakers or learners have varied considerably. Nevertheless, most definitions have focused on two factors: a personal or familial connection to a non-majority language (Fishman, 2001) and a particular degree of proficiency in the language (Valdés, 1997). Valdés (2001) defined a HL speaker as an individual "who is raised in a home where a non-English language is spoken, who speaks or merely understands the heritage language, and who is to some degree, bilingual in English and the heritage language'' (p. 1). According to Beaudrie and Fairclough (2012), Valdés's definition is the most widely adopted in the educational field due to the fact that proficiency in the language is a key component for research and teaching practice. Valdés (1997) developed a typology of eight different types of Spanish HL speakers, ranging from individuals who attended school in their native Spanish-speaking country to those

who exhibit only receptive competence in the language. This investigation adopts the definition that Valdés (2001) proposed as the present study is concerned with HL learners, particularly students who choose to continue learning their heritage language during their postsecondary education and who did not receive formal instruction in their heritage language during elementary and most of their middle school years.

Lynch (2003) has argued that Spanish language educators in the U.S. must respond to the contemporary needs of the HL speakers. The author explained that Spanish language education for the HL learners has usually been termed "Spanish for Native Speakers" or "Spanish for Bilinguals." However, he believed that the term "heritage" learner should not imply a lesser or greater degree of language competency and that HL speakers should be placed in Spanish courses that address students' functional language abilities rather than their self-reports or "administrators' classificatory debates about who is more 'bilingual' or more 'native'" (p. 30). Moreover, Lynch stated that some teachers tend to assume that HL learners are much more proficient than L2 learners because they have a better pronunciation, a more fluid discourse, or a more positive attitude toward Spanish in general. Nevertheless, he indicated that HL speakers form a heterogeneous group with diverse proficiency levels, who share some common sociocultural backgrounds.

According to the author, teachers often have in their Spanish classes HL speakers who sometimes refuse to speak the language, who resort to English rather attempting to use different forms or vocabulary in Spanish, or who argue that they are only taking the class to fulfill a requirement. Thus, Lynch recommended that teachers refrain from entering the classroom with assumptions about the linguistic abilities of their students.

Also, he recommended perceiving HL learners more as advanced L2 learners of Spanish rather than native speakers of Spanish because both types of learners (HL and L2) are usually English-dominant. He suggested that educators should use pedagogical methods that aim to develop HL learners' fullest potential as speakers of Spanish in the context of the U.S. and not as native Spanish speakers. Toribio and Bullock (2016) confirmed this statement by indicating that U.S. Spanish is different from other varieties of Spanish. However, they emphasized that U.S. Spanish is not "deficient or incomplete" but different from the Spanish acquired in monolingual contexts because the nature of the input that HL speakers receive may be more specific with limited styles and registers (p. 36). Consequently, Fairclough (2016) pointed out that HL programs need to teach alternative dialects, so HL learners can increase their linguistic repertoire and obtain more options for communication in different social contexts.

Although in most cases HL speakers grow up in a home where their HL is spoken, their HL may not develop to the same extent as their L2. Similar to second language acquisition, HL speakers' ultimate attainment of their HL in early adulthood varies significantly (Montrul, 2008). According to Montrul and Bowles (2017), young adults' heritage language is delayed and interrupted because of the restricted or limited input they receive before puberty. Their grammar often displays features of simplification that are similar to developmental stages of first language and L2 acquisition (Montrul & Bowles, 2017, p. 488).

Furthermore, research has revealed that many HL speakers are affected by language attrition. Seliger (1996) defined attrition as "the temporary or permanent loss of language ability as reflected in a speaker's performance or in his or her inability to make

grammaticality judgments that would be consistent with native speaker (NS) monolinguals of the same age and stage of language development" (p. 616). According to Montrul (2008), language attrition affects structural aspects of the heritage language because of a "language shift" or a change in its relative use. In other words, HL learners' use of their heritage language decreases and it gradually becomes their L2 (Montrul, 2013, p. 210). Consequently, Montrul (2013) stated that adult heritage language speakers may have significant gaps in the linguistic knowledge of their HL.

Previous research has indicated that there are several differences between HL and L2 learners. One of the main differences is that most HL speakers are exposed to the language from birth. Because of this, Valdés (2001) explained that a HL learner enters the classroom environment with some functional knowledge of his/her heritage language that was acquired most often in a naturalistic environment. Subsequently, HL speakers may display a higher phonological linguistic ability than L2 learners (Knightly, Jun, Oh, & Au, 2003). Also, HL speakers may have a wider lexical repertoire than L2 learners (Montrul & Foote, 2014). Another difference between HL and L2 learners is the mode by which they acquire the language. HL speakers usually acquire their heritage language aurally and in a naturalistic setting because they are exposed to it at home and/or in their communities. These contexts helped them to acquire better functional abilities particularly in terms of native-like phonological perception and production (Henshaw, 2015). For this reason, a great number of Spanish HL learners can understand and participate in everyday conversations. As Carreira (2016) noted: "in a national survey of college HLLs, a significant majority of Spanish-speakers (68%) rated their listening skills as advanced or native like and a resounding majority (82%) rated their speaking skills in

the range of intermediate and above" (p. 161). On the other hand, many of the L2 learners, who HL students encounter in language classes, acquire their L2 through formal instruction in the classroom (Henshaw, 2015). Thus, HL learners tend to have better "aural comprehension skills than oral production and written skills" (Montrul, 2011, p. 159), while L2 learners tend to perform better on written tasks (Bowles, 2011b). Furthermore, Kagan and Dillon (2018) pointed out the one feature in the HL learner speech that differentiates him/her from a native speaker is code-switching. According to the authors, a number of researchers have considered code-switching a strategy or resource that HL speakers use to express their social identity (p. 486).

Regarding academic Spanish, L2 learners develop better abilities to access and use the academic register more often than HL learners because L2 learners are exposed to the language usually in the classroom context. According to Carreira (2016), L2 learners are more practiced than HL learners at "sustaining a conversation outside the realm of the autobiographical and familiar, communicating in paragraph-style oral discourse, achieving textual cohesion, and using academic vocabulary" (p. 162). The author argued that many Latino HL learners may be less prepared than their non-Latino counterparts to be enrolled in advanced Spanish level courses. According to her, many Latino HL learners do not develop the necessary academic skills required to succeed in these courses; these circumstances affect their academic performance. Some factors linked to poor academic performance of Latino HL learners include but are not limited to "lower levels of parental education, poverty, frequent relocation, and lack of access to high quality schools" (Carreira, 2016, p. 163).

Researchers have also found some similarities between HL and L2 learners. For instance, they both display "non-native-like attainment and transfer errors from the dominant language" (Montrul, 2011, p. 160). Furthermore, some specific morphosyntactic features can be challenging for both types of learners (Montrul & Bowles, 2010). Also, similar to L2 learners, HL students need language and literacy instruction in order to develop the linguistic knowledge they acquire at home (Montrul & Bowles, 2017). A significant observation that has come to light from previous research is that each type of learner has diverse target language skills and experiences using them, which could benefit and complement their peers' learning process.

Considering the limitations and strengths of previous research, it is important to carry out studies of classrooms that enroll both types of learners. These studies help educators not only to understand learners' linguistic similarities and differences, but also to develop teaching practices that address the linguistic needs of both HL and L2 speakers.

HL Learner-L2 Learner Interaction

In 2013, the U.S. Census Bureau reported that Spanish is the most common heritage language in the country with over 38 million speakers in 2012. The large number of Spanish heritage language speakers has increased enrollments of HL learners in classes that teach Spanish as second language (Showstack, 2012). Although some universities try to accommodate HL learners by offering classes designed specifically for their linguistic needs, usually termed "native speaker courses," "heritage language courses" or courses "for bilingual/bicultural students" (Showstack, 2012, p. 8), there are still universities in the U.S. that do not offer these types of classes (Beaudrie & Fairclough, 2012, p. 207). In

fact, only 18% of higher education language programs reported offering separate courses for HL learners in 2001 (Burgo, 2018). Thus, HL students who are interested in developing full command of the language or in maintaining ties to their cultural heritage, often have to enroll in Spanish classes where the majority of students are L2 learners. Having a combination of HL and L2 learners in the same classroom can present challenges to language teaching practices. For instance, it may be difficult for instructors to develop lessons and materials that benefit and facilitate the language acquisition of all students in such contexts.

Despite the amount of peer interaction research and the increasing enrollment of HL learners in foreign language courses, only a limited number of studies have been conducted to examine the nature and effectiveness of interactions among Spanish HL and L2 learners. Blake and Zyzik (2003) and Bowles (2011a) investigated interactions between HL and L2 learners who were paired in lab settings. In Blake and Zyzik's study, 11 university Spanish HL students, enrolled in a course titled "Spanish for Native Speakers," were paired with 11 L2 learners from an intermediate Spanish class. Pairs had to collaboratively solve a two-way jigsaw task via text chats. Even though no statistical analyses were conducted, the text chats revealed that HL students assisted their L2 partners much more often than the reverse. These results suggest the advantages that intermediate level learners have from working with HL learners. Also, Blake and Zyzik (2003) speculated that HL learners can benefit from interacting with L2 learners because interactions offer an opportunity for HL learners to use their cultural and linguistic knowledge while assisting their L2 partners. Therefore, according to the authors, these interactions could be taken as a "confidence-boosting experience" (p. 540) for HL

learners who are insecure about their heritage language abilities. However, one of the limitations of this study is that exchanges between participants did not take place in a face-to-face context, and that HL and L2 students were not registered in the same class. Consequently, the findings in this study may not be generalizable to interactions occurring in classrooms enrolling HL and L2 learners.

Meanwhile, Bowles (2011a) found that the benefits were more balanced for HL and L2 learners during face-to-face interaction. In the study, nine HL and nine L2 learners enrolled in diverse Spanish language courses were matched for proficiency. Dyads completed one oral and two written tasks and audio recorded interactions were coded for LREs. Results showed that both types of learners initiated a similar number of LREs which were also resolved in equal proportion. The author also found that in the written tasks, HL learners relied on their L2 partners for spelling and accent placement issues, whereas L2 learners needed more assistance from their HL partners for vocabulary and grammar issues. Even though all participants in this study were enrolled or had been enrolled in Spanish courses and the completed tasks simulated the classroom environment, HL and L2 participants were not enrolled together in the same class when data were collected. Therefore, the classroom reality may not have been reflected because the dataset included interactions from students who were not real classmates. The classroom setting was more artificial than authentic.

More recently, Bowles, Adams, and Toth (2014) analyzed task-based interactions of 26 naturally-occurring learner dyads in an intermediate-level, university Spanish language classroom. The study compared the nature of 13 L2-L2 and 13 L2-HL dyads' interactions. The authors investigated whether the two types of dyads differed in their

focus on form or in the amount of talk produced during interaction. They found that the two types of dyads were very similar, although L2-HL pairs were more likely to resolve instances of focus on form in a target-like manner. L2-HL dyads also displayed more target language talk. However, through a posttask questionnaire, the authors found that L2 and HL learners believed that the interaction was an opportunity for L2 learners' language development, but not as much for HL learners. The results from this study are important because it questions whether classroom contexts that enroll L2 and HL learners meet the needs of HL learners. However, since there were not post-tests in the study, it is difficult to determine students' learning outcomes as a result of the interaction.

Finally, Henshaw (2015) examined whether HL and L2 learners in eight HL-L2 dyads, who were enrolled in the same intermediate-level Spanish class, differed in the initiation and resolution of FFEs during a collaborative writing task. The author also investigated students' learning gains as a result of the interaction by administering two individual post-treatment writing tasks, one given immediately after the collaborative task and the other one was given two weeks later. Transcripts of dyads' interactions revealed that of the 196 FFEs, 123 (63%) were initiated by L2 learners and 73 (37%) were initiated by HL learners. Henshaw found that out of the 191 FFEs that were resolved, 61 (32%) were resolved by the L2 learners, whereas 130 (68%) were resolved by the HL learners. These results suggest that, in these dyads, L2 learners appeared to benefit much more from the interaction than their HL partners. In regard to learning gains, L2 learners incorporated information provided by their HL learners more often in the two post-tests, which also suggests that L2 learners revealed more learning outcomes

than their HL partners. This particular study is significant because it is one of the first ones to investigate HL and L2 students' learning gains as a result of the interaction.

Strategies for Teaching Mixed Classes

Based on the increased number of HL learners enrolling in classes at all educational levels with L2 learners, Kagan and Dillon (2018) noted that recent research has focused on exploring their linguistic differences as well as diverse strategies, tools, and best practices for teaching HL and L2 learners simultaneously in institutional settings. However, Carreira (2016) argued that a national survey of post-secondary language programs conducted by the National Heritage Language Resource Center showed that only one program, out of 300, informed using teaching methods and materials designed specifically for mixed classes. This finding indicates that most of the language courses that enroll HL and L2 learners in the U.S. are using methods and materials designed primarily for L2 learners (Carreira, 2016, p. 160).

As described previously, previous research has indicated that there are several differences between HL and L2 learners. Thus, it is necessary to develop textbooks, assessment tools, and curricula specifically designed for courses that enroll both types of learners. Fortunately, Potowski (2016) pointed out that currently, more Spanish educators in the U.S. are becoming familiar with issues related to teaching Spanish to HL speakers due to the creation of free online teaching resources along with the publication of textbooks designed specifically for HL teachers. These resources provide educators information regarding sociolinguistic principles, issues regarding HL speakers in the U.S., and best teaching practices.

Carreira (2016) offered several strategies that instructors can implement in their classroom to enhance learning for both types of students. She asserted that instructors should develop tasks that generate opportunities for reciprocal learning in the area of language as well as culture. To do this, the author emphasized that before designing an activity, instructors should take into consideration three main aspects: (1) all tasks should have a clear and defined goal, (2) identify which of the two types of learners would find the task more challenging and assign it to that specific learner, and (3) include additional tasks to challenge the other type of learner (p. 166). Furthermore, Carreira considered it important to develop activities where the two types of learners also work separately from each other, so they can address identity or linguistic issues. To develop the flexible grouping strategies, the author explained that instructors must use specialized tools. Some of these tools and strategies include: a learning agenda or a list of activities that learners must complete during a proposed period of time; a physical location inside the classroom where learners can find diverse types of materials that provide opportunities for independent learning; activities that include prompts that encourage students to discuss issues related to socio-affective topics; a chart where students can write what they know, what they want to learn, and what they have learned (the KWL chart) at the beginning and at the end of each chapter (p. 170-192). In addition to these strategies and tools, Burgo (2018) has proposed other instructional practices that teachers of mixed classes can include to meet the needs of HL and L2 learners. For example, she recommended promoting sociolinguistics training for instructors, so they can recognize students' dialect variations and foster a wider appreciation of the value of the cultural and linguistic diversity in the classroom. Moreover, she argued that there are certain teaching

methodologies that have the potential to be more beneficial for mixed classrooms such as content-based instruction, project-based instruction, and language for special purposes.

Regarding project-based instruction and language for special purposes, Lowther Pereira (2016) and Fairclough (2016) argued that the integration of a community service learning (CSL) component along with academic instruction is a critical pedagogical model that supports HL learners' academic and civic learning. Lowther Pereira (2016) explained that this model "has the potential to provide students with much-needed opportunities to challenge dominant linguistic and social hierarches and promote student agency by valuing the unique knowledge and skillset that SHL learners bring to the classroom" (p. 238). She noted that CSL offer many different benefits for HL learners such as the opportunity to use their HL in diverse contexts outside of the classroom and the critical appreciation for their HL knowledge, linguistic, and cultural identities that learners develop through the CSL experience. Thus, another strategy that instructors can implement to enhance learning for both types of students, but particularly for HL learners, is to find opportunities for CSL, where learners can appreciate their language varieties and see their language knowledge as a resource to help their communities.

Furthermore, Fairclough (2016) argued that integrating technology into the classroom is an effective way to not only help students develop learners' language skills and offer differentiated instruction, but also to identify HL learners and to administer proficiency and achievement assessment tools. Thus, technology is a significant tool that can help educators address the needs of students with diverse abilities particularly in mixed classrooms.

Limitations of Previous Research on HL-L2 Learner Interaction

The few studies that have investigated the effects of HL-L2 learner interaction in the classroom, have suggested that HL and L2 students may have diverse linguistic benefits from working together. Research has shown that learning opportunities may be unbalanced depending on diverse factors such as differences in proficiency levels between the two types of learners, as well as task modality. However, comparisons between the nature of interactions among all three types of possible pairs (HL-HL, HL-L2, and L2-L2 dyads) enrolled in a same, authentic classroom as well as research on the learning outcomes of HL and L2 students from the same class has been scarce. The present study will expand the existing research by investigating and documenting the nature of HL and L2 student interaction and the effect of such interactions on language learning.

CHAPTER 3

THEORETICAL FRAMEWORK OF THE STUDY

This chapter reviews the theoretical framework of this study, which is sociocultural theory (SCT) and its central concepts including mediation, the zone of proximal development, and scaffolding. Moreover, this chapter discusses some variables that mediate the effect of peer interaction on student learning, including patterns of interaction, grouping practices, task type, the mode of interaction, and the use of the first language during peer or group work.

Sociocultural Theory

Sociocultural theory is based on the work of Lev Vygotsky, a researcher and theorist of child development. His theory was further developed by scholars interested in psychology and education (e.g., Wells, 1999; Wertsch, 1993). In applied linguistics, the theory has been applied in classroom studies by a great number of educational researchers, but James Lantolf was the first researcher to employ it in order to study how L2 learners use language to mediate their performances when working on difficult tasks (Storch, 2017).

Sociocultural theory views cognitive development as fundamentally social and mediated by artifacts (e.g., numbers, music, art, gestures, and language). The most fundamental concept of Vygotsky's sociocultural theory (SCT) is *mediation.* Lantolf (2000) explained that according to Vygotsky, humans rely on tools, especially psychological tools or signs along with labor activities to alter the world and to mediate our relationships with others and with ourselves. Lantolf described that in Vygotsky's views, all human activities—social and mental—are organized through culturally

constructed artifacts that every generation modifies before passing them on to future generations (p. 1). The most central of these artifacts is language, a tool for thought or a means of mediation. It is through language that people can direct their or others' attention to important features in the environment and articulate information (Mitchell, Myles, & Marsden, 2013). From the SCT point of view, learning is a process mediated through a learner's use and control of mental tools such as language. Learning is socially mediated because it relies on interactions with expert members of a community (e.g., adults, teachers) and/or peers (Mitchell, Myles, & Marsden, 2013). Thus, SCT supports the idea that people's cognitive functions appear first during social interactions and then they are internalized within the individual. Furthermore, SCT does not view internalization as a process of imitation but rather as a transformative process: "the novice processes the knowledge that was co-constructed with the expert and makes it her own unique resource" (Storch, 2017, p. 70). From this perspective, an individual cannot only recreate but also modify and extend knowledge through interaction.

Zone of Proximal Development (ZPD)

From the SCT perspective, social forms of mediation develop in the "zone of proximal development" (ZPD), a metaphorical location or "site" used to understand how mediational means work and how learners co-construct knowledge with an interlocutor. Lantolf (2000) explained that learning occurs in interaction between a learner (a novice), who is not yet capable of independent functioning, and a person and/or cultural artifacts (an expert), who/that can provide relevant assistance to the learner in order to achieve a desired outcome. However, he explained that the assistance that an expert provides is not always supportive of development. As Storch (2017) described "effective assistance

needs to be contingently responsive to the learner's need for assistance, and ultimately involve a 'handover' of responsibility to the learner so that the learner can perform tasks independently" (p. 71). Effective assistance is dynamic because the expert needs to observe the learner's capacity to use the assistance provided to advance his/her own learning. In other words, development would not take place if an expert provides too much assistance or if the task is too easy (Ohta, 2000, p. 52). In some recent sociocultural work on second language learning, one important feature related to the construction of linguistic knowledge is that the ZPD emerges and can be co-constructed among peers, not only with an expert (Ortega, 2009). Storch (2017) explained that during interactions, the novice should not act as a passive recipient of assistance but rather as an active member during the interaction whose contributions are significant because they provide a cue to the peer or expert. Moreover, the expert should provide support that can make difficult tasks accessible but at the same time, encourage novice engagement (Storch, 2017, p. 71). Successful learning takes place when the process of collaborative and supportive dialogue directs the attention of the learner to significant features and issues that can be recognized or solved through the process of *scaffolding*.

Scaffolding

Related to the notion of the ZPD is the construct of *scaffolding.* Donato (1994) defined scaffolding as "a dialogically constituted interpsychological mechanism that promotes the novice's internalization of knowledge co-constructed in shared activity" (p. 41). Wood, Bruner, and Ross (1976) introduced this metaphor to describe the interactions between an adult or parent and a child. According to Storch (2017), the metaphor refers to the idea that learning is perceived as a building under construction, where the scaffold

is essential during the construction process, but it is not a permanent structure (p. 71). In the classroom context, scaffolding is perceived as the temporary assistance that an instructor or peer offers to a learner, so that he/she can perform a task that is beyond his/her current capacity. The assistance that the expert provides should be gradual and decreased or removed when the learner is capable of independent functioning.

Aljaafreh and Lantolf (1994) carried out a study that examined the L2 development that appeared to occur as a result of mediation and scaffolding during teacher-student talk. The participants included three adult ESL learners receiving one-to-one oral feedback from a tutor on weekly writing assignments. During each tutorial, first, the participants checked their writings for any mistakes they could identify by themselves without the assistance of the tutor. Then, the tutor and each participant worked together to identify errors. When an error was identified, the tutor scaffolded the participant to correct it by providing different levels of assistance, from the most implicit to the most specific and explicit correction. According to the authors "the idea is to offer just enough assistance to encourage and guide the learner to participate in the activity and to assume increased responsibility for arriving at the appropriate performance" (Aljaafreh & Lantolf, 1994, p. 469). These participants were audio-recorded for eight weeks to trace their developing capabilities on four specific grammatical English structures. The authors found that all participants exhibited diverse developmental trajectories over the eight weeks, depending on the grammatical structure that was targeted during the feedback. Moreover, the study showed that when participants needed feedback that was more implicit than explicit, they were moving towards more independent and *self-regulated* performance, which was taken as a positive sign of development. The authors argued that

evidence of learning cannot be measured only through the accurate use of structures, but also through the change and progress in quality of assistance that the learner requires. This implies a change from other-regulation (reliance on the expert's assistance) to self-regulation or independent functioning. The findings of Aljaafreh and Lantolf's study proved that carefully scaffolded feedback provided by an expert (tutor/teacher) can create opportunities for learning. However, peers can also create opportunities for scaffolded feedback when working in small group/pair work on collaborative activities.

For example, in her study, Ohta (2000) investigated the interactional cues to which peers orient when trying to provide developmentally appropriate assistance to each other. The study involved two university-level learners of Japanese who were working on completing an oral translation task. During the interaction, both learners produced LREs and one of them indicated through subtle interactional cues that she needed assistance. Ohta (2000) argued that the expert's responsiveness to these cues and her readiness to provide support, allowed the novice to improve her performance. The study reported that both learners were able to benefit from the interaction and that the provision of developmentally appropriate assistance depends on factors such as attention to what the novice can do independently and the expert's readiness for help. Thus, in the study, both learners showed collaborative engagement as they approached a task, which created an opportunity for language development (Ohta, 2000, p. 53). Similarly, in a different study, Brooks and Swain (2009) analyzed and compared the effects of peer and expert feedback. The researchers found that for the four participants in the study, peer feedback resulted more effective than expert feedback because it appeared that the expert provided feedback that was beyond the learner's ZPD. On the other hand, peers were able to offer

assistance that was more appropriate to their developmental stages. Both studies have suggested that collaborative interaction is an essential social and a cognitive tool that mediates learning.

Patterns of Interaction

From a sociocultural perspective, pair and group work can be conducive to L2 learning because during interaction, learners use language to analyze, think, and build new knowledge. A process that Swain (2006) termed "languaging." The positive relation between the quantity of LREs and language learning gains was already discussed in the previous chapter of this study. However, it is important to emphasize that not all pair/group work can lead to L2 learning. For example, Storch (2002) identified four different types of relationships that intermediate adult ESL learners formed when working on a range of writing tasks: collaborative, expert/novice, dominant/dominant, and dominant/passive. In her study, the dyads that exhibited high degrees of *mutuality* ("the level of engagement with each other's contributions") and *equality* ("the degree of control over the direction of the task") (Storch, 2002, p. 127) were categorized as collaborative. Learners with high mutuality but low equality were categorized as expert/novice, and those with low mutuality but high equality were labelled dominant/dominant. Dyads with both low mutuality and equality were categorized as dominant/passive (these categories are described in more detail in Chapter Four of the present study). Storch found that pairs with higher mutuality (collaborative/collaborative and expert/novice) showed more evidence of peer scaffolding and of learning gains.

Other studies (e.g., Rouhshad & Storch, 2016; Sato & Viveros, 2016) have confirmed the importance of collaborative patterns of peer interaction for task

engagement and subsequently, for L2 learning. For example, in Sato & Viveros' (2016) study (described in the previous chapter of the present study), the researchers explained that the low proficiency learners engaged in more language-related collaboration because their interlocutors provided a higher degree of collaborative assistance. This finding supports the claims made by Watanabe & Swain (2007) and Storch & Aldosari (2013) regarding the positive effects of collaborative dialogue on L2 learning. Nevertheless, these positive effects can only take place when other factors have been taken into consideration such as the role that grouping practices play in promoting effective peer scaffolding.

Regarding grouping practices, drawing from a sociocultural framework, Walls (2018) investigated the interactions of 16 learners (eight HL learners and eight L2 learners) working in mixed (HL-HL, HL-L2, and L2-L2) dyads during a collaborative writing task in the context of two introductory Spanish courses at a community college. The author found that all matched dyads exhibited a collaborative pattern, whereas the mixed dyads showed diverse patterns of interaction. Furthermore, she found that a significant difference in the interactional practices that emerged between mixed and matched dyads was the use of English. She observed that in mixed dyads, L2 learners usually participated in English and the HL learners translated their partners' contributions into Spanish. Moreover, Walls argued that regardless of the interactional pattern, in the mixed dyads the HL learners displayed an expert role, often mediated by their own learning using different strategies such as reading the handouts that the researcher provided or consulting online translators.

She asserted that in matched dyads participants showed a collaborative pattern by completing the writing task together, assisting each other during linguistic issues, building on each other's suggestions, and taking turns assuming the role of expert. Therefore, Walls recommended that educators tailor group activities to meet the needs of both types of learners. For example, she suggested that instructors should partner students in matched dyads because learners share similar knowledge sets, which can help to promote a collaborative pattern of interaction. If having matched dyads is not possible, Walls indicated that instructors should designate each partner's role, for example, the L2 learner could do the typing, which might encourage more negotiation of meaning and more discussions about language features between the two types of learners.

Another study that examined the challenges of pairing learners whose proficiency levels are dissimilar is the one that Young and Tedick (2016) carried out. The authors analyzed 16 audio-recorded sessions of student Spanish interaction in a 5th grade two-way immersion classroom, which combined Spanish HL learners and Spanish L2 learners. Similar to Walls' (2018) findings, they confirmed that focal students engaged in more collaborative dialogues during homogenous small group work than during heterogenous work. The authors noted that the teacher assigned heterogeneous groups for complex tasks that involved reading because she had assumed that more proficient speakers would act as experts and would assist less proficient speakers in comprehending the texts. However, the authors argued that the teacher's assumption affected students' interaction because the explicit assignment of roles led to marginalization and silencing of less proficient participants. They argued that grouping students based on their proficiency of the target language will not always "lead to scaffolding on the part of the

most advanced speakers (experts) for the benefit of less proficient speakers (novices)" (p. 157). However, Young and Tedick believed that when teachers offer more scaffolds for students (e.g., visual charts, word banks, sentences starters for answers), heterogenous grouping can provide more equal opportunities for participation and collaboration, which can lead to language development. Thus, it is significant to identify the factors that can affect assistance and a collaborative interaction during peer and group work. In addition to the role that grouping practices plays in promoting effective peer scaffolding, another aspect to consider is the design of the tasks that learners are asked to complete during group work.

Previous research has shown that tasks that require the production of a written text encourage more the focus on language choice and grammatical accuracy than tasks that only require speaking (e.g., Niu, 2009; Storch, 2013; Williams, 2012). However, not all writing tasks are equally effective. For example, in her study, García Mayo (2002) observed seven dyads of high-intermediate/advanced EFL learners who completed two form-focused tasks (a dictogloss and a text reconstruction) collaboratively in a laboratory setting. According to the authors, these types of tasks have been effective for L2 language learning because they encourage learners to deliberate about language choice and grammatical accuracy. Nevertheless, the authors found that the text-reconstruction task was more successful than the dictogloss task because it encouraged more talk on language-related issues. Contrarily, the authors believed that the dictogloss task did not generate a great number of LREs because learners focused more on "producing a coherent paragraph and not on discussing and reflecting on their language choices" (p.170). Thus, for language instructors it is imperative to identify the types of tasks that

promote the most beneficial interaction patterns. Another factor to consider regarding task type is the mode of interaction.

Rouhshad and Storch (2016) compared patterns of interaction of 12 pairs of intermediate ESL learners completing a collaborative writing task in a face-to-face and a computer mediated mode (Google Docs). Their findings revealed that the mode of interaction (face-to-face versus online) affects the pattern of interaction between pairs of learners. In their study, the authors observed that during the face-to-face interactions, participants formed a collaborative relationship where they sought and provided each other with assistance and corrective feedback regarding L2 use. On the other hand, when participants completed the task using the computer mediated mode, they developed a dominant/passive pattern of interaction, where one of the participants composed and edited the text while the other participant did not contribute much. Based on their findings, Rouhshad and Storch argued that tasks that combine oral interaction and writing, and which provide learners the opportunity to interact face-to-face with each other, are ideal for L2 learning. However, they believe that the inclusion of computer-mediated tasks in language classes also has the potential to provide good sites for language learning if they are carefully designed and monitored. Thus, these studies have examined the impact that different variables such as grouping practices, task type, and the mode of interaction have on patterns of interaction and attention to language. Another feature that may impact interaction is the use of the first language.

Use of the First Language during Collaborative Dialogue

From a sociocultural point of view, children's early language learning is the result of interaction with members of a specific culture. Thus, language develops from

collaborative interaction as a tool for making meaning of the world (Mitchell, Myles, & Marsden, 2013). After individuals internalize the symbolic tools of their first language system, L2 learners can use those tools as a resource to create other tools and new ways of meaning. Studies that have investigated pair and small group work on different types of language tasks, have found that the first language (L1) is a significant resource for L2 learners to deliberate about language forms and choices or task requirements (e.g., Davin & Donato, 2013; McDonough, Crawford, & De Vleeschauwer 2106; Storch & Aldosari, 2010, Swain y Lapkin 2000). For example, Antón and Dicamilla (1999) examined the collaborative talk of ten adult learners of introductory Spanish working in pairs to complete a writing task. The authors found that participants used their L1 (English) to mediate the construction of collective scaffolding and the cognitive processes that participants used in problem solving tasks. According to the authors:

> By means of the L1 the students enlist and maintain each other's interest in the task throughout its performance, develop strategies for making the task manageable, maintain their focus on the goal of the task, foreground important elements of the task, discuss what needs to be done to solve specific problems, and explicate and build on each other's partial solutions to specific problems throughout the task. (p. 237)

The authors' statement suggested that within the sociocultural perspective, the use of the L1 is beneficial for language learning when learners are engaged in meaning-based collaborative tasks. The use of the L1 allows learners to create not only a social, but also a cognitive space in which learners can assist each other to complete the task. In a different study that involved eight pairs of third-year high school learners of Spanish, who were working on a two-way information gap activity, Brooks and Donato (1994) found that learners used their shared L1 to orient themselves to how they might accomplish the task. The authors observed that when participants discussed the language

of the task and its goals using their L1, they were able to orient themselves in a collaborative manner, which allowed them "to regulate themselves during the problem-solving activity" (p. 272). Similarly, McDonough, Crawford, and De Vleeschauwer (2016) argued that during collaborative writing tasks, the use of the L1 can provide each student in the group the opportunity to contribute equally during the planning process. However, they also specified that L1 use during the writing process may have a negative relationship with text quality.

The findings in these studies have suggested that the use of the L1 as a cognitive tool may support L2 learning. Furthermore, these studies have indicated that interaction during pair or small group can only become effective if learners are given the opportunity to take control over the task even if it requires the use of the L1.

Research Questions

The following research questions guided this classroom-based research study:

1. What patterns of interaction can be found between each pair of learners?
2. To what extent do dyads engage in LREs during peer task-based interaction?
3. What are the characteristics of the LREs that appear?
4. Do participants differ in terms of learning gains after peer task-based interaction?

CHAPTER 4

METHODOLOGY

This chapter provides a description of the design and methodological procedures I employed in the study to answer the research questions that guided the investigation. It includes an overview of the research design, a description of the context of the study, as well as of the HL and L2 participants, the target grammatical structures, the materials, and data collection procedures. All coding and analytic procedures are described in the following chapter.

An Overview of the Research Design

The present study is a qualitative study that includes descriptive quantitative elements in the analysis. The study was conducted in two intact intermediate Spanish classes and not in an experimental setting. This is particularly significant because research on classrooms that include HL and L2 students is scarce despite the prevalence of this scenario in many secondary and post-secondary educational contexts (Bowles et al., 2014; Burgo, 2018; Beaudrie & Fairclough, 2012). Furthermore, studying peer interaction in mixed learner classrooms could provide empirical evidence regarding both types of learners' needs (Bowles et al., 2014). All tasks used for data collection were part of the standard course curriculum and completed in pairs during regular class meetings. The tasks were collaborative in nature, which facilitated the production of LREs. They were directly related to the units of the course and were designed to elicit the present subjunctive in nominal and adjectival clauses. Individual learning gains were measured through an individual pre-test, an immediate post-test, and a delayed post-test. As described in the following sections, due to the qualitative nature of the study, a variety of

research tools and resources were used to collect the data. These included a language background questionnaire, a proficiency test, audio-recorded pair talk as the participants completed four written tasks, the completed written pair tasks, observation notes, a pre-test, and two post-tests.

Context and Participants

In one class, there were 20 students and in the other one, there were 19. Since I was the researcher and the instructor of both classes, it was particularly important to explain to students orally and in written form that their participation in the study was completely voluntary and that it was their choice to participate or to refuse to be included (see Appendix A). I explained that their lack of participation in the study would in no manner affect their grade in the course. All 39 students agreed to participate but only the data from 24 learners were selected for analysis because they met the background requirements for inclusion in this study. Furthermore, these learners provided a complete dataset in terms of the tasks completed and were present for all administrations of the pretest and posttests. Also, the selected participants completed the tasks according to instructions, and the technical quality of their recordings was better compared with other participants' recordings. The 24 participants were grouped in 12 learner-learner dyads (four HL-HL, four HL-L2, and four L2-L2 dyads). All participants were undergraduate students at a large public university in the United States. Ten of the participants (five HL and five L2 learners) were enrolled in an intermediate-level, fourth-semester Spanish class entitled "Composition." Fourteen of the participants (seven HL and seven L2 learners) were in an another intermediate-level, fourth-semester Spanish class entitled "Hispanic Readings." Both courses focused on developing writing, reading, listening, and

speaking skills through a variety of analytical and creative assignments. Although they were both designed to develop the four language skills, Composition focused more on developing students' writing skills, while Hispanic Readings focused on developing students' reading skills. Learners are usually placed in these courses because they either take a written, proficiency placement test administered by the university or because they are following the Spanish language program sequencing of the Spanish Department. However, it should be noted that at the time of data collection, the Composition course was a prerequisite and the Hispanic Readings course was an elective. Both courses were designed for students who wanted to take more advanced Spanish classes, and for students who wanted to major or minor in Spanish. The university did not offer separate courses for HL and L2 learners at the time of data collection.

The first week of the semester, all students in both courses completed a language background questionnaire. Participants were categorized as HL or L2 learners based on information collected on the questionnaire. All participants reported that they had attended schools in the United States where English was the main language of instruction. None of the participants attended a bilingual education, dual immersion or full immersion Spanish program as children. Additionally, both types of participants reported using more English than Spanish in their current daily lives. The most important characteristics of the HL and L2 learners in this study are summarized in Table 1 and Table 2 below. Some other significant characteristics of the HL and L2 learners in this study are described in the following two sections.

Table 1. Participant characteristics

Pair number	Type of learner	Name	Gender	Course	Age	AO English	AO Spanish
Pair 1	HL	Angelo	M	Composition	20	1	1
	HL	Jenny	F	Composition	20	4	1
Pair 2	HL	Juan	M	Composition	21	6	1
	HL	Carolina	F	Composition	18	1	5
Pair 3	HL	Carly	F	Hispanic R.	21	6	2
	HL	Blanca	F	Hispanic R.	22	2	3
Pair 4	HL	Jessica	F	Hispanic R.	21	1	1
	HL	Marco	M	Hispanic R.	19	3	1
Pair 5	HL	Gabriela	F	Composition	19	4	1
	L2	Lucas	M	Composition	22	1	12
Pair 6	HL	Isa	F	Hispanic R.	19	2	1
	L2	Driana	F	Hispanic R.	21	1	18
Pair 7	HL	Jasmin	F	Hispanic R.	20	1	1
	L2	Brason	M	Hispanic R.	18	1	14
Pair 8	HL	Silvia	F	Hispanic R.	21	1	5
	L2	Moira	F	Hispanic R.	18	1	13
Pair 9	L2	Maria	F	Composition	19	1	15
	L2	Bahia	F	Composition	19	6	12
Pair 10	L2	Maritza	F	Composition	19	1	13
	L2	Fatima	F	Composition	20	1	7
Pair 11	L2	Julia	F	Hispanic R.	20	1	10
	L2	Margarita	F	Hispanic R.	20	2	10
Pair 12	L2	Katy	F	Hispanic R.	20	1.5	8
	L2	Briana	F	Hispanic R.	19	2	9

AO: Age of Onset

Table 2. Participant proficiency

			Self-Rated Proficiency								*DELE*
			English				Spanish				
	Learner	Name	Speaking	Reading	Writing	Listening	Speaking	Reading	Writing	Listening	
Pair 1	HL	Angelo	5	5	5	5	5	4	4	5	45
	HL	Jenny	4	5	5	5	2	2	3	4	42
Pair 2	HL	Juan	5	5	5	5	3	3	4	3	46
	HL	Carolina	5	4	4	4	2	3	4	4	32
Pair 3	HL	Carly	4	4	4	5	5	3	2	4	43
	HL	Blanca	5	5	5	5	5	3	3	5	38
Pair 4	HL	Jessica	5	5	5	5	4	5	4	5	40
	HL	Marco	5	4	5	5	3	3	4	5	43
Pair 5	HL	Gabriela	5	5	5	5	5	4	4	5	40
	L2	Lucas	5	5	5	5	3	5	4	3	41
Pair 6	HL	Isa	5	5	5	5	2.3	3	3	4	28
	L2	Driana	5	5	5	5	2	4	2	3	30
Pair 7	HL	Jasmin	5	5	4	5	5	2	2	5	29
	L2	Brason	5	5	5	5	5	4	3	4	38
Pair 8	HL	Silvia	5	5	5	5	3	3	4	4	39
	L2	Moira	5	5	5	5	3	3	3	3	38
Pair 9	L2	Maria	5	5	5	5	2	3	3	3	40
	L2	Bahia	5	5	5	5	4	4	3	3	38
Pair 10	L2	Maritza	5	5	5	5	2	4	3	4	35
	L2	Fatima	5	5	5	5	2	4	3.5	3	37
Pair 11	L2	Julia	5	5	4	5	3	4	4	4	39
	L2	Margarita	5	5	5	5	2	2	1	3	38
Pair 12	L2	Katy	5	5	5	5	4	4	4	5	37
	L2	Briana	4	4	5	5	5	5	4	4	40

HL Learners

Following Valdés' (2001) classification, participants were categorized as HL learners after reviewing information such as age of acquisition of English, use of Spanish at home, and amount of schooling in Spanish. The HL participants in this study (*n*=12, 9 females, 3 males) reported having been raised in a Spanish/English-speaking household from childhood. They also stated that at least one of their parents was a native speaker of Spanish. Four of the HL participants had parents who were both born in the same Spanish speaking country (Puerto Rico, Dominican Republic, and Bolivia), two participants had parents who were born in different Spanish speaking countries (Nicaragua and Guatemala; Colombia and Mexico), and six participants had one parent who was born in a Spanish speaking country (Puerto Rico, Mexico, Colombia, and Peru) and one U.S.-born parent. All participants recorded that they were exposed to English before or at the age of six. As previously stated, all HL participants reported being exposed to both Spanish and English at home during their childhoods. Even though they affirmed that they currently speak more English than Spanish in their daily lives, they continued to interact in Spanish with at least one person in their family, often with a grandparent and/or parent. All HL participants had taken at least one year of Spanish as a foreign language course in high school. They also indicated that they had visited, for short periods of time (between 2 weeks and 2.5 months), their parents' homeland or another Spanish speaking country.

Although proficiency in Spanish was not a controlled variable in this study, the proficiency level of the participants was documented through a reduced version of the *Diploma de Español como Lengua Extranjera* (DELE) proficiency test (see Appendix B).

The HL learners' scores on the DELE proficiency test ranged from 28 to 46 (out of a maximum possible score of 50). According to the scale for this version of the DELE test, seven of the HL participants had an advanced proficiency level, three participants an intermediate level, and two participants a low level.

For self-rated proficiency, most HL participants' highest self-rated language skill in Spanish was listening with a mean score of 4.4 (out of a maximum possible score of 5), while their lowest was reading (mean score=4.4). For most HL participants their self-rated writing and speaking scores were similar, with an average score of 3.3 for writing and 3.2 for speaking.

L2 Learners

In reference to the L2 participants, 11 of the 12 participants (10 females, 2 males) were monolingually-raised native speakers of English; they reported using only English with their families during their childhood. Bahia, one of the L2 participants, stated that she was raised in an English/Hindi-speaking household from childhood, but similar to the other L2 participants, she was born and schooled in the U.S. All L2 participants reported that they started learning Spanish as a foreign language after the age of 7 (average age of first exposure: 11.7). They stated that they have taken an average of 2.5 years of Spanish classes in high school and none of them had visited a Spanish speaking country for a period of time longer than four weeks. The L2 learners' scores on the DELE proficiency test ranged from 30 to 41. According to the DELE's scale, three of participants were considered to have an advanced proficiency level, while nine had an intermediate level. Contrary to most HL participants, for self-rated proficiency, the majority of L2 participants' highest self-rated language skill in Spanish was reading with a mean score

of 4.9, while their lowest was speaking with a mean score of 2.9. Their self-rated average writing score was 3.1 and their self-rated average listening score was 3.5.

Grammatical Content

All written tasks used to collect data in this study were designed to elicit student use of the Spanish subjunctive in nominal and adjectival clauses. Nonetheless, it was expected that learners would address other grammatical structures during their LREs. As attested by previous research, one of the features of Spanish known to pose difficulties for HL and L2 learners is the subjunctive (Montrul, 2008; Silva-Corvalán, 1994, 2003). Montrul (2008) explained that the "subjunctive is acquired by monolingual Spanish children at around age 2;6-3;00, after the past tense is in place, but not fully developed until the age of 12" (p. 177). She argued that this may be due to the fact that the syntactic, semantic, and pragmatic rules that are related to the use of indicative and subjunctive mood selection in Spanish are very complex. According to the author, for many HL speakers the subjunctive mood may not be as fully established as it would be for monolingual native Spanish speakers. Once they start school (in the U.S.), HL speakers' exposure to Spanish diminishes as their exposure and use of English increases. Consequently, HL speakers may not be able to distinguish the indicative from the subjunctive because their "simplified grammars may be the result of incomplete acquisition in childhood" (Montrul, 2008, p. 179). On the other hand, the challenges that L2 learners of Spanish have with the subjunctive have been attributed to diverse causes. For instance, VanPatten (1998) explained that this difficulty may be the result of the lack of "an active subjunctive" in English (p. 108). Furthermore, Mikulski and Elola (2013) believed that L2 learners may have problems producing the subjunctive because they tend

to focus their attention on other morphosyntactic matters rather than on mood selection (p. 70). These studies support the idea that the use of the subjunctive is challenging for both types of learners. For the purpose of this study, students worked on several tasks that required the use of the present subjunctive in noun and adjectival clauses.

In addition to a specific textbook for each course, both courses were required to have the same grammar reference book titled *Gramática esencial*: *Grammar Reference and Review* (Rojas & Curry, 2003). To follow the curriculum in each class, data collection was scheduled to take place after the contrast between the preterit and the imperfect had been covered in both courses. Moreover, there were no differences between how the subjunctive was taught in the Composition and Hispanic Readings class. However, after data were collected and the instructional unit was completed, each class had to complete an assignment which included a short composition for the Composition class and a reading for the Hispanic Readings class. These assignments were not analyzed in the present study.

The oral and written input that participants received regarding the use of the subjunctive in noun and adjectival clauses was adapted from the textbook *Pasajes: Lengua* (Bretz, L, M.; Dvorak, T.; Kirschner, C.; Bransdorfer, R., 2010), which I used occasionally in both courses to supplement the materials and activities provided by the textbooks that students used in their corresponding courses. In order for the Spanish subjunctive to be used in noun clauses, the textbook explained that three conditions must be met: (1) the sentence must contain a main clause and a subordinate clause; (2) the main clause and the subordinate clause must have different subjects; and (3) the main clause must communicate certain messages such as persuasion, doubt, or emotional

reactions. Unlike adjectival clauses, subjunctive use in volitional constructions is considered obligatory as in (a) and (b).

(a) *Quiero que traigas el libro*

I want you to bring the book

(b) *Es necesario que vengas a clase*

It is necessary that you come to class

In adjectival clauses, subjunctive selection is optional; however, speakers' choice between subjunctive and indicative is based on a difference in meaning. For example, in (c), the indicative is used in the adjective clause because it describes something that the speaker has identified as a specific, individualized referent.

(c) *Leo un libro que trata sobre las campañas políticas*

I read a book that deals with political campaigns

The choice of the indicative over the subjunctive indicates that the book is part of the speaker's "reality" (Whitley, 2002, p. 127). When an adjective clause describes "unreality" (Whitley, 2002, p.127) or something with which the speaker has had no previous experience, the subjunctive is used as in (d).

(d) *Me interesa un libro que trate sobre las campañas políticas*

I am interested in a book that deals with political campaigns

This sentence indicates that the speaker is interested in a book—any book—that deals with that specific topic; such a book is not known to actually exist.

Intermediate-level classes, at the university where data were collected, tend to introduce and review these uses of the present subjunctive in noun and adjectival clauses, but some students do not receive sufficient opportunities to practice them during

interaction with other learners. All tasks used to collect data in this study were designed to create opportunities for learners to communicate with each other using these target grammatical structures.

Materials

Language Background Questionnaire

All participants completed a Language Background Questionnaire taken from the National Heritage Language Resource Center website (see Appendix C). Besides eliciting personal information such as age, birthplace, and education, this instrument provided more information about participants' linguistic background including, but not limited to, their parents' L1, age of onset of bilingualism, self-assessments of English and Spanish language skills, and level of education in Spanish. This instrument was useful to identify the HL and the L2 students in each course.

DELE Proficiency Test (Diploma de Español como Lengua Extranjera)

The DELE (Diploma of Spanish as a Foreign Language) is a language proficiency test administered by the Instituto Cervantes to certify degree of competence and mastery of the Spanish language, granted by the Ministry of Education, Culture, and Sport of Spain. In 2012, Montrul modified and adapted a version of the DELE and made it available on the National Heritage Language Resource Center website for researchers to use when trying to determine different proficiency levels of monolingual Spanish speakers, L2 speakers, and HL speakers. The validity of using the DELE exam as a measure of HL learners' language skills, knowledge, and abilities has been questioned in previous research (Carreira & Potowski, 2011). However, in other studies with both HL and L2 learners (e.g., Bowles, 2011a; Henshaw, 2015; Montrul & Perpiñán, 2011), DELE

scores have been useful for instructors or researchers to form groups of students or to reflect the classroom reality. This study utilized the DELE to collect additional information about participants' proficiency in Spanish. However, test scores were not taken into consideration to select dyads. The version of the DELE given to participants was the one adapted by Montrul in 2012 (see Appendix B). In this test, there was one vocabulary section where participants had to complete a blank space in several sentences by selecting the choice that best completed the statement. Also, there was a cloze passage section where participants had to select one option, out of three, to complete the sentences.

Classroom Tasks

Approximately two weeks before I provided explicit explanations in Spanish regarding the use of the target structure, all students completed a written pre-test (see Appendix D). As explained in the following chapter, pre-test data were compared to post-tests data to analyze whether a change in the language development of students had actually occurred. Results were also used to analyze the outcomes of instruction and task-based interaction in terms of knowledge retention for each learner.

Three weeks after the pre-test, there were four tasks that required the production of written output (henceforth, writing tasks). These tasks were considered "output-prompting" because they provided opportunities for students to develop their writing and speaking language skills (Ellis, 2012). All tasks were designed to be completed in pairs. Loewen and Sato (2018) confirmed that there have been different definitions of what constitutes a task. However, they reported that there is some consensus that several main features must be included: "The main focus of a task should be on communication and

meaning rather than linguistic forms. Learners should use primarily their own linguistics resources, and the goal of the task should be non-linguistic in nature" (p.302). All tasks used for data collection were designed taking into consideration the above-mentioned definition.

Writing Tasks

The writing tasks were designed to be completed in pairs and all of them were collaborative. This type of task has been found to encourage learners to reflect on their own output and to engage in negotiations about what ideas to include in the text and how to express them (Storch, 2017; Swain & Lapkin, 2001). In collaborative tasks, students have access to all of the same information, and they have to work together to make decisions in order to complete the task. Students completed two tasks per lesson during a two-week period.

In the first writing task (see Appendix E), students wrote a narrative based on a picture of a famous painting by Fernando Botero or Héctor Poleo. Learners were given ten different pictures and they had to choose one to create the narrative based solely on the picture and their imagination. Before writing, dyads were encouraged to discuss the characters' traits, the place where the characters were located, their possible issue, and the options the characters had to solve it. For this task, learners were asked to use at least four expressions that required the subjunctive (e.g., *es necesario que*, *esperar que*, *recomendar que, preferir que,* etc.).

In the second writing task, (see Appendix F), students were given three fictional problems that different people were experiencing. For example, there was a scenario where a person had issues focusing in the classroom. In another scenario, a person had

issues keeping a stable relationship with his/her partner. Dyads had to write a letter in which they offered advice to one person based on his/her specific issue. For this task, learners were encouraged to give advice based on their personal experiences; they were also asked to use different expressions that trigger the subjunctive (e.g., *sugiero que*, *recomiendo que*, *es importante que*, etc.).

In the third writing task (see Appendix G), students wrote a classified ad where they described the qualities or abilities of a person they were looking for in the context of employment or their personal life. Dyads had to discuss what kind of person they needed or wanted. They were encouraged to write information in the announcement that attracted candidates, rather than listing requirements and qualifications.

Lastly, in the fourth writing task (see Appendix H), students had to imagine that they were going to found a student organization. They had to discuss and write about the importance of this organization, its mission and what they needed, wanted, and were looking for to establish it. Students were given ten minutes to complete each writing task. After dyads completed each task, I asked for volunteers to read out loud and share with the rest of the class their compositions.

Artefact Collection

All student writing completed during the four writing tasks was collected at the end of each task.

Data Collection Procedure

Data collection took place during the fall semester of 2016. As mentioned above, it involved the participation of two intact classes where I was the researcher and the instructor. According to De Costa, Valmori, and Choi (2017), the presence of the

researchers could constitute a central and valuable component of qualitative research because it is characterized by features such as inductiveness, descriptiveness, and interpretiveness (p. 522).

The courses lasted 16 weeks and met on Tuesdays and Thursdays for 80 minutes each day. Data were collected in weeks one, five, eight, nine, ten, and sixteen. All tasks designed for the study were completed during class and were administered as part of regular course work. From the beginning of the semester, classroom activities involved communicative tasks to be completed both in pairs and in small groups. This was a common practice in these classes, which contributed to creating rapport among all students. During some lessons, students selected their group members; during other lessons, and usually for time saving purposes, I selected group members. Thus, all participants were accustomed to and seemed comfortable working with different types of learners. During lessons in which I collected data, I paired learners in order to have an equal number of mixed and matched dyads. Table 3 illustrates the study's tasks and the week in which each took place during the semester.

Table 3. Tasks completed for data collection

Week	Procedures
One	Language questionnaire
One	DELE
Five	Pre-test
Eight	Writing task 1 (*La historia detrás de una pintura*)
Eight	Writing task 2 (*Sabelotodo*)
Nine	Writing task 3 (*Avisos clasificados*)
Nine	Writing task 4 (*Nuestra organización*)
Ten	Post-test
Sixteen	Delayed post-test

Prior to the beginning of the study, all participants read and signed a consent form approved by Temple University's Institution Review Board (see Appendix A). On the first week of classes, all students in both courses completed the language background questionnaire (see Appendix C), and the DELE proficiency test (see Appendix B). The information provided on the questionnaire was used to identify HL and L2 learners who met the background requirements for inclusion in this study, as described in the participants' section. As stated earlier, approximately two weeks before receiving an explicit explanation in Spanish on the use of the subjunctive in nominal and adjectival clauses, all students in the course completed the written pre-test (see Appendix D). In this pre-test, there was one section where learners had to write a suggestion to a fictional person based on a specific issue. There were five different situations and students were asked to write one or two complete sentences per issue using the expression *recomiendo que*. Also, there was another section where learners had to complete a blank space in several sentences by conjugating a verb given in the infinitive form. Learners were instructed to conjugate each verb in any tense they considered appropriate. The last section of the pre-test included incomplete statements (e.g. *prefiero las clases que…*, *voy a viajar a un lugar donde…*, *quiero una mascota que…*, etc.) that students had to complete in order to write a clear and coherent sentence.

Two weeks later, students completed corresponding textbook readings on the subjunctive, and I provided explicit oral explanations of the subjunctive in noun and adjectival clauses during two class meetings. In one of these class meetings, I presented and gave examples of the subjunctive in nominal clauses using the information provided in the students' textbook: *Gramática esencial*: *Grammar Reference and Review* (Rojas &

Curry, 2003). Before introducing the subjunctive in noun clauses, I reviewed with students the difference between dependent and independent clauses. I wrote down on the board examples of several independent and dependent clauses, that function as nouns, adjectives, and adverbs. Then, I used some of those examples to point out that generally, expressions that reflect willingness/wishes, emotion, impersonal expressions, requests/recommendations, doubt or denial, and the word *ojalá* are followed by the subjunctive in a dependent clause. Moreover, I explained that there are some special cases to be aware of such as affirmative statements that trigger the indicative rather than the subjunctive (e.g., *creo que, pienso que*). Later, I asked students to work in pairs to complete five out of the ten activities included in their grammar textbook, which required the production of both written and oral output. I asked for volunteers to share their answers with the class after completing each of the five activities. During this whole-class review, I gave explicit oral feedback to the students who volunteered to share their answers. I also encouraged all the students in the class to ask questions.

In the following class, after explicit presentation and explanation of the subjunctive in noun clauses, I selected dyads based on learners' linguistic background data (HL, L2) reported on the questionnaire. Some HL learners were paired with other HL learners, some L2 learners were paired with other L2 learners, and some L2 learners were paired with HL learners. I paired learners based exclusively on their linguistic backgrounds. At the beginning of this first session and after I formed dyads, participants selected pseudonyms that were used in place of their names on the written assignments, audio-recorded interactions, transcripts, and other documents used in the study.

Participants were given some general instructions before they started to work on each of the four writing assignments used for analysis in the present study. First, as in every group activity, they were told to use Spanish as much as possible when interacting with each other. Then, they were asked to speak loudly and close to the digital voice recorders and to not turn off or pause the voice recorder at any time during task completion. Furthermore, to avoid having one learner write while the other copied from the draft during writing tasks, both students in each dyad were asked to write but the two drafts had to be the same. To promote negotiation among participants, they were told to discuss orally what they planned to say before they started writing. Then, I explained the instructions for completing each task. I repeated these instructions before each task, and I circulated around the classroom to make sure students were following the directions properly and not having difficulties with the task or the instructions. Learners were advised to work with the same partner throughout the duration of the study. As mentioned above, data from some dyads were not included in the study for different reasons, for example when participants had to change partners at some point due to absence.

The first writing task that students completed was titled *La historia detrás de una pintura* (see Appendix E). In the next class meeting, dyads completed the second task, which was titled *Sabelotodo* (see Appendix F). Following the completion of the first two writing tasks, which were related to the subjunctive in nominal clauses, I provided explicit oral explanations about the subjunctive in adjectival clauses using the information provided in the students' textbook: *Gramática esencial*: *Grammar Reference and Review* (Rojas & Curry, 2003). Before introducing the subjunctive in adjective

clauses, I reviewed with students information regarding relative pronouns. I pointed out that relative pronouns introduce dependent adjective (or relative) clauses and that both the pronoun and the rest of the adjective clause refer back to an antecedent. I wrote down on the board examples to illustrate this explanation. Then, I emphasized that the nature of the antecedent determined the use of the subjunctive or the indicative in adjective clauses. To illustrate this, I provided examples of clauses that included antecedents that were specific and known to exist, which required the use of the indicative. I compared those clauses with other ones where the antecedent was unknown or may not exist, which required the use of the subjunctive. Later, I asked students to work in pairs to complete five out of the eight activities included in their grammar textbook. These activities required the production of both written and oral output. I asked for volunteers to share their answers with the class after completing each of the five activities. During this whole-class review, I gave explicit oral feedback to the students who volunteered to share their writings and I encouraged students to ask questions.

In the next class meeting, dyads completed the third task, which was titled *Avisos clasificados* (see Appendix G). The fourth writing task was titled *Nuestra organización* (see Appendix H) and was completed in the following class meeting. After the completion of each task, some volunteers shared their compositions with the class. Later, I reviewed students' writings and I wrote down explicit feedback. Students were able to look at the corrections and feedback, but they were asked to return these materials, so I could use them for the present research project.

One week later, learners took the post-test (see Appendix D), which was the same as the pre-test. In the last week of classes, participants completed a delayed post-test,

which had the same format as the pre-test and post-test but included different vocabulary and expressions.

In summary, this chapter provided a description of the design and methodological procedures I used in the study to answer the research questions. It included an overview of the research design, a description of the context of the study, as well as of the HL and L2 participants, the target grammatical structures, the materials, and data collection procedures. All coding and analytic procedures are described in the following chapter.

CHAPTER 5

DATA ANALYSIS

This chapter describes my approach to analysis, which was guided by previous research. I provide a detailed explanation of the analytical and coding procedures related to each of my research questions.

Transcription

Learners' interactions were recorded using portable digital voice recorders placed on the table between each pair of participants while they were working on the specific four writing tasks. The dataset consisted of a total of 48 recordings: one interaction per group (n=12) in each of the four tasks. I saved all conversational interactions on an external hard drive and a password-protected laptop. Moreover, I transcribed all utterances verbatim. The transcriptions formed the main source of data.

Analysis of the Data

In the present study, I adopted a mixed methods approach; that is, qualitative and quantitative methods were used to analyze the data. Following Storch's (2001b) study, the quantitative part of this investigation was restricted to descriptive statistics such as frequency counts of oral production (e.g., number of conversational turns, see Table 4 below). The goal of using the quantitative approach was to support the qualitative analysis rather than to verify or prove a hypothesis. Mackey and Gass (2005) explained that qualitative research is based on the provision of detailed descriptive data collected in natural settings. They stated that it tends to be process-oriented or open ended; in this way, the researcher can observe and generate questions from whatever may be present in the context being studied. On the other hand, quantitative research involves planned

observations determined by the design of the research, which includes categories that cannot be changed once the research is underway. Moreover, quantitative data are interpreted according to a pre-established hypothesis or a theoretical model used by the researcher. Thus, a quantitative approach is more interested in the common features of groups of people rather than in an individual (Mackey & Gass, 2005). Some of the strengths of quantitative approaches are that they tend to be systematic, focused, controlled, and they produce data that can be replicable and generalizable to other contexts (Dörnyei, 2007, p. 34). However, Nunan and Bailey (2009) argued that neither approach is inherently superior to the other. In fact, Dörnyei (2007) explained that using mixed methods could have more advantages than disadvantages. For example, mixing methods has the potential to increase the strengths of one method to overcome the weakness of another. It could also improve the validity of research outcomes, and the results are usually acceptable for a larger audience than those from a one type of method would be (p. 46).

As mentioned above, Mackey and Gass (2005) stated that one of the strengths of qualitative approaches is the ability to start the analysis without having pre-selected categories because they emerge during the process of investigation. Even though the first stage of my data analysis involved listening to the interactions to have a general understanding of the data, I used pre-determined categories. The categories I used were taken from several previous studies that investigated the nature of group work (García Mayo & Azkarai, 2016; Kos, 2017; Storch, 2001b, 2002, 2008). After developing a general understanding of the data and listening to the interactions several times, I imposed these categories on the data during the analysis of each transcript. Dörnyei

(2007) explained that using pre-selected categories could be beneficial during the initial coding procedure because the researcher can create links between extracts from different accounts in a focused and time-efficient manner (p. 253). During the transcription process, I also wrote notes for every interaction I transcribed, which was useful when I revisited the data. Moreover, I looked at the students' writings completed during the writing tasks to compare them with their discussions. To avoid applying preconceptions to the data, I reviewed the data and my initial interpretations in later stages of the analysis several times.

As has been done in previous classroom research (e.g., Bowles et al., 2014; Choi & Iwashita, 2016; Foster & Ohta, 2005; Kos, 2017; Moranski & Toth, 2016), I implemented a micro-genetic approach (Lazaraton, 2004) to analyze each transcript. That is, I observed and examined closely all utterances produced by each pair over the four writing tasks. This close study of the moment-by-moment talk allowed me to identify the diverse interactional patterns (Storch, 2001b, 2002) that pairs developed during the tasks and the different types of LREs that were produced during students' interactions. I analyzed the spoken data produced during peer interaction in different stages, which will be explained in the following sections.

First Stage of Data Analysis: Listening, Transcribing, Writing Observations

My first step to analyze the data was to review the notes I wrote during data collection. These notes included information about students' seating arrangements, use of tools such as cellphones or dictionaries during task completion, participants' behavior during the interaction, and students' short absences during task completion due to uncontrolled circumstances, such as bathroom breaks. After reviewing those notes, I

listened to some of the interactions to obtain a general idea of the data. While I was listening to the selected recordings, I wrote observations that seemed relevant, such as the use of the L1 versus the use of the L2 and the turn taking mechanism. After listening to the recordings, I transcribed the interactions on tasks, and I took notes during this process. The notes helped me to remember, in later stages of the analysis, significant features I noticed during this first stage of analysis. I transcribed all conversational interactions using *Transana Standard 3.01* software (Woods, 2015), which provided simple keyboard shortcuts for controlling the media files from within the transcription window. I used simple transcription conventions to facilitate the representation of oral data in written format. For example, I used dots to convey pauses or silences, all capital letters to show emphasis or stress, and a parenthesis to describe students' behavior during the interaction (e.g., laughing, reading, writing). For instances where the clarity of some utterances was affected by background noise, I wrote "inaudible" or "unclear" in brackets. I consulted with a colleague about unclear or inaudible instances that seemed significant for the analysis of the data. He was able identify some, but not all, of those utterances. Thus, there are a few unclear or inaudible words or sentences on the transcriptions that remained unresolved.

Second Stage of Data Analysis: Segmenting the Data

Following Storch's (2001b) data analysis design, I segmented the data into two main categories, off-task talk and on-task talk. Off-task talk were episodes in the pair talk data where participants talked about topics that were not related to the task at hand, as illustrated in Excerpt (1). In this extract from the data, after completing the task, participants talked about their plans for the summer. Even though many pairs used the

target language during off-task talk, this type of talk in the data occurred more frequently after participants had already completed the task. Since the present study focuses on patterns of interaction and LREs produced during task completion, I decided to exclude the off-task talk that occurred after participants had finished the task from further analysis in this study. However, the off-task talk that occurred during task completion was included and analyzed.

(1) 1. Julia: *Uh quiero ir, necesito ir al baño*
[Uh I want to go, I need to go to the bathroom]

2. Margarita: *Este verano quiero, quiero ser un voluntario con español*
[I want to be a volunteer with Spanish this summer]

3. Julia: *¿Dónde?*
[Where?]

4. Margarita: *No sé, pero quiero hacer algo con mi español, con chicos o en una oficina*
[I don't know, but I want to do something with my Spanish, with kids or in an office]

5. Julia: *Hay muchas programas de verano como para las escuelas*[1]
[there are a lot of summer programs like for schools]

6. Margarita: *Sí, sí. Mi prima fui a un campo de español cuando era niña*
[Yes, yes, my cousin—I went to a Spanish summer camp when she was a little girl]

7. Julia: *¿Sí?*
[Yes]

8. Margarita: *Sí, es como inmersión*
[Yes, it is like immersion]

[1] I transcribed all utterances verbatim. Thus, some sentences may look and sound agrammatical.

Third Stage of Data Analysis: Segmentation of On-task Talk

Following previous studies (Kos, 2017; Storch, 2001b, 2002) on-task talk was segmented into three main categories: (1) talk about the task at hand or *task-related episodes* (TREs), (2) talk about language use and choices or *language related episodes* (LREs) and (3) development of the task content or *content related episodes* (CRE). TREs included all instances where participants read task instructions, clarified or stated task requirements, assigned roles or negotiated responsibilities and procedures, announced the next stage in the task, and invited contribution (Storch, 2001b, p. 135). The following example taken from the data illustrates the TRE category. In Excerpt (2), the two HL participants read the instructions (turn 8) and select a picture to describe and create a story (turn 1, 2, 5, 10) while the instructor clarifies task requirements (turn 6). It is important to highlight that turn (4) was not analyzed as a TRE but as a CRE.

(2). 1. Angelo: *Elige el que quieras*
[Choose the one you want]

2. Jenny: Okay, so *el que yo quiero elegir es la segunda foto con la mujer o el hombre con ropa de dormir con la ropa debajo y las botas*
[Okay, so the one I want to choose is the second photo with the woman or the man in the nightclothes with the clothes underneath and the boots]

3. Angelo: *Sí* (laughs)
Yes

4. Jenny: (Laughs) *y está un poco triste porque no le puede enseñar al mundo la persona que es porque o si no lo matan*
[and he is a bit sad because he cannot show the world the person he is because then he would get killed]

5. Angelo: *Sí* (laughs), *creativo*, okay, *bueno elegí la primera foto*
[Yes (laughs), creative, okay I chose the first picture]

6. Profesora: *Recuerden que tienen que escribir; todos tienen que escribir*
[Remember that you must write; everybody must write]

7. Jenny: *Yo no quiero*
[I do not want to]

8. Angelo: *¿Cómo son las personas? ¿Quiénes son las personas? ¿Dónde están? ¿Cuál es el dilema? ¿cómo van a resolverlo los personajes?*
(Reading the instructions given in the handout)
¿Me da un papel de ese? ¿Escribimos dos?
[Can I have one of those papers? Do we write two?]

9. Jenny: *¿Cuál foto elegiste?*
[Which picture did you choose?]

10. Angelo: *La segunda foto*
[The second picture]

Following Swain and Lapkin's (1998) definition, an LRE in this study was conceptualized as any segment in the pair talk where at least one participant in each pair raised a concern about the target language. Each LRE began when a participant started to discuss the language being produced, questioned his/her language use, or corrected himself/herself or others and ended when participants changed the conversational topic or when they moved on with the task, thus resolving or abandoning the initial concern (Swain & Lapkin, 1998, p. 326). Furthermore, LREs were also coded according to which learner initiated them. As in Bowles (2011a), the learner who first focused on a linguistic feature or questioned the language being used was coded as the *initiator* of the LRE. Additionally, as in Henshaw's (2015) study, the learner of the dyad who tried to provide a more target-like resolution to LREs was coded as the *supplier*.

In addition, types of LREs and the level of engagement of participants were categorized following Storch (2008) and García Mayo and Azkarai's (2016) models. The

nature of LREs was coded on the basis of form, which refers to four linguistic foci: *Morphosyntactic, vocabulary, pronunciation,* and *orthography*. Morphosyntactic LREs were divided into two categories: (1) LREs regarding inflectional and derivational morphology such as articles, prepositions, pronouns, etc. and (2) LREs that had to do specifically with the target structure (the present subjunctive in nominal and adjectival clauses). Vocabulary LREs revolved around word choice, word meaning, and semantic distinctions (e.g., *ser/estar*). Pronunciation LREs included all cases related to L2 phonetics or phonology. Orthography LREs were those targeting issues of spelling and accent placement.

The *outcome* of LREs were classified as *correctly resolved, unresolved* or *incorrectly resolved*. When learners came to an agreement about the questioned language form and if the outcome of the LRE was more target-like than the trigger, it was coded as correctly resolved. If participants did not come to an agreement or the LRE was abandoned, it was coded as unresolved. If learners came to an agreement but they did not provide a target-like resolution based on the context, the LRE was coded as incorrectly resolved. Finally, in the categorization of the *level of engagement* in LREs, there were three subcategories: *elaborate,* when the two members of the dyad were engaged in the conversation and both were trying to resolve the issue. *Limited*, when only one member of the group raised and discussed the concern while the other member did not address the issue, and *limited-limited,* when one member questioned the language being used, but then he/she and the other member of the dyad did not discuss the linguistic issue at hand and immediately moved on with the task. Figure 1, which has been adapted from García

Mayo and Azkarai's (2016) study, illustrates this categorization for each LRE produced during task completion.

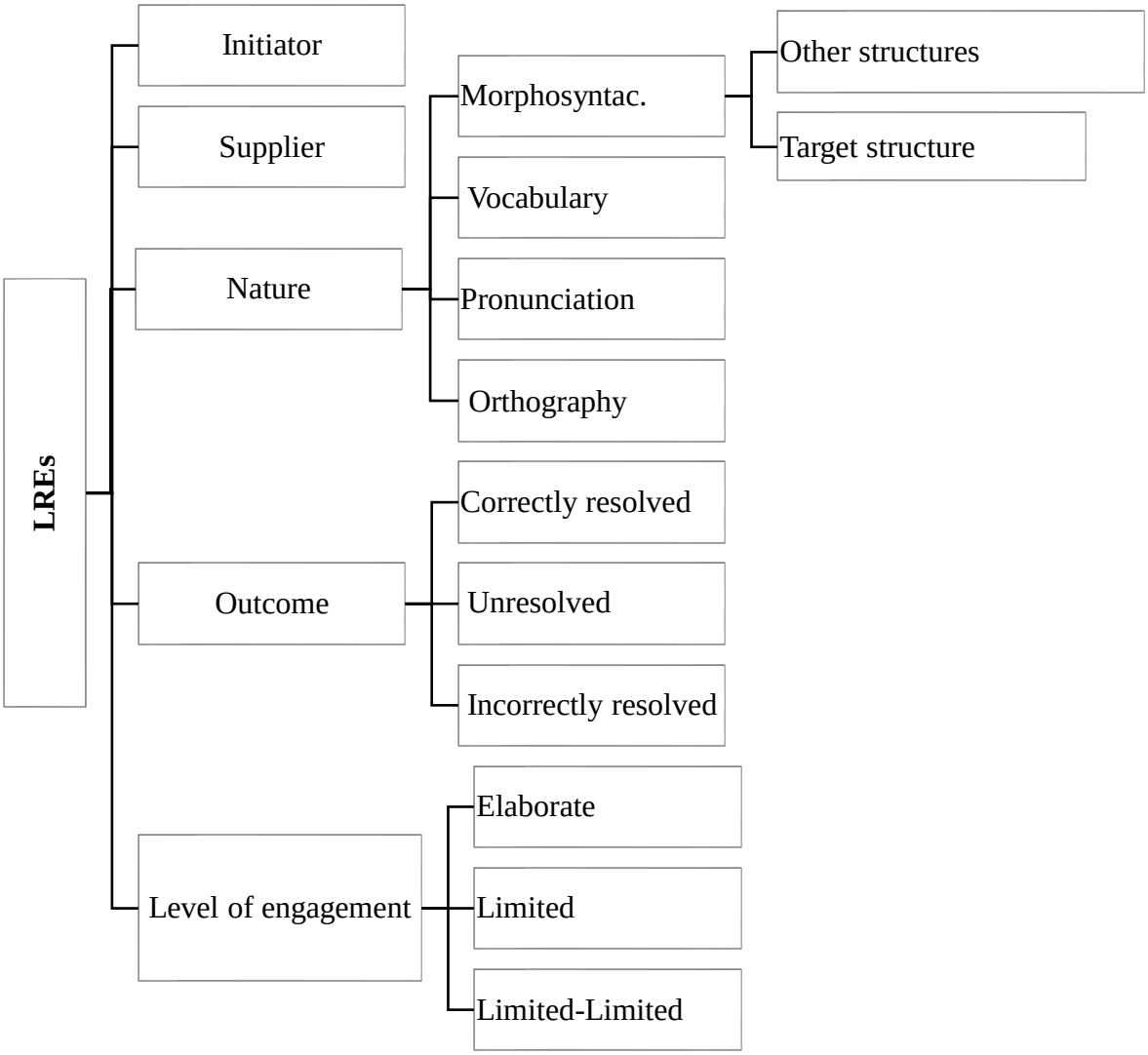

Figure 1. Categorization of LREs

The following examples, all of them from the database, illustrate different types of coded LREs in the present study.

Excerpt (3) was coded as a morphosyntactic, not dealing with a target structure, incorrectly resolved LRE. In the writing task four, Maritza, an L2 learner, asks about the form 'to be paid' in Spanish. Fatima (also an L2 learner) offers three different answers: '*Están pagados*' (turn 4), '*deben estar pagados,*' and '*pueden estar*' (turn 6). However, Maritza decides to use '*necesitan pagados*' (turn 7). Fatima agrees on the use of '*las mujeres necesitan pagados,*' which is incorrect. The form they were looking for is '*las mujeres necesitan ser pagadas.*' This LRE was coded as an elaborate LRE as both participants deliberated about it and tried to find a solution.

(3)
1. Maritza: *No pienso que deben pagar*, they shouldn't be, *pagar*, no, how do you say to be paid?
   [I do not think they should pay, they shouldn't be, to pay, no, how do you say to be paid?]
2. Fatima: Oh yeah
3. Maritza: I wrote this down last night
4. Fatima: ¿*Están pagados*?
   [Are they paid?]
5. Maritza: They should *pagados*. *Pienso que* they should have
   [They should paid. I think that they should have]
6. Fatima: Um, yeah, maybe it is *deben estar pagados* or *pueden estar*
   [Um, yeah, maybe it is they should be paid or can be]
7. Maritza: *Pienso que las mujeres necesitan pagados lo mismo*. Does that make sense?
   [I think that women need paid the same. Does that make sense?]
8. Fatima: Yeah, yeah. Okay

Excerpt (4) was coded as a target structure morphosyntactic LRE from an interaction on the writing task four. In turn 2, Fatima provides an expression that reflects a desire followed by the subjunctive of the verb *saber*: '*sepan.*' In turn 3, Maritza agrees with her idea and Fatima continues with the task in turn 4. However, in turn 5, Maritza questions the mood of the verb '*ayudar*' but at the same time, she abandons that specific LRE because she realizes that '*saber*' should be in the indicative mood. In turn 6, Fatima agrees with the correction and provides and explanation in turn 8, which Maritza completes in turn 9. The correct verb form is then completed by Fatima (turn 10). This was coded as a correctly resolved and elaborate LRE.

(4)
1. Maritza: *Nuestra misión es que a los estudiantes que no*
   [Our mission is that students who do not]
2. Fatima: *Quiero ayudar los estudiantes que no, que no, um, no sepan, no sepan hacer en el futuro*
   [I want to help students who do not, who do not, um, do not know, do not to do in the future]
3. Maritza: Yeah
4. Fatima: Okay. So, *este* organization um, *quiere ayudar*
   [Okay. So, this organization um, wants to help]
5. Maritza: Or *ayuda*? Or wait this should be the indicative
   [Or helps? Or wait this should be the indicative]
6. Fatima: Yeah
7. Maritza: It would be
8. Fatima: They actually don't know, so *que no*
   [They actually don't know, so who do not]
9. Maritza: Because we are describing them, so it would be indicative, right?
10. Fatima: Yeah, *que no saben hacer*
    [Yeah, who do not know to do]

Extract (5) took place during writing task one and shows a target structure LRE. In turn 5, Silvia (an HL participant) asks whether the correct form of the verb is '*discutamos*' or '*discutimos.*' Even though Moira (an L2 participant) does not engage in a discussion regarding the verb form, this LRE was coded as a correctly resolved LRE because in turn 7, Silvia decides to use '*discutamos*' which is the correct form based on the context of the sentence. As Moira did not try to provide an answer or discuss the question, it seems that she was not engaged with the LRE; thus, it was coded as limited.

(5)
1. Silvia: *El enemigo dice que prefiero, que* um, *que nosotros discutimos sobre el problema*
   [The enemy says that I prefer, that um, that we discuss about the issue]
2. Moira: *El hombre dijo, ¿qué dijo?*
   [The man said, what did he say?]
3. Silvia: *Prefiero que no me mates y*
   [I prefer you do not kill me and]
4. Moira: *Descu*
5. Silvia: *Discutamos sobre la problema o ¿discutimos?*
   [That we discuss (subjunctive) about the issue or we discuss (present indicative)]
6. Moira: *Necesitamos otra que,* like *prefiero que no me mates y que*
   [We need another one that, like, I prefer that you do not kill me and that]
7. Silvia: Um *sí puede usarlo si quieres, pero* um *creo que no es necesario, no sé, no me mates y discutamos sobre el problema*
   [Um yes you can use it if you want, but um I do not think it's necessary, I do not know, do not kill me and let's discuss the problem]
8. Moira: Wait, *es el hombre diciendo ahora*
   [Wait, it's the man saying now]

9. Silvia: *No, todavía él puede decir más*
[No, he can still say more]

In Except (6), Blanca and Carly (both participants are HL learners) are completing writing task four. This segment of the interaction was coded as a lexical LRE. In turn 1, Blanca asks for the Spanish translation of the word 'step on' and Carly provides her with the correct word in turn 2 and still seems to be thinking about the preposition 'on' in turn 4. As Carly's answer is correct, this LRE was coded as a correctly resolved and elaborate LRE as both members are actively engaged in the discussion.

(6) 1. Blanca: ¿*Cómo se dice* step on?
[How do you say step on?]
2. Carly: Hmm *pues ¿pisar? Yo piso el vidrio. Creo que* step, *creo que es pisar*
[Hmm okay to step? I step on glass. I think that step, I think it is to step]
3. Blanca: *¿Pisar?*
[To step?]
4. Carly: *Sí. No sé si será diferente* to step on. *Pisar el vidrio. También,* umm, *estoy seguro que también contribuye al calentamiento global* so *tenemos que ser responsables, esa es la campaña*
[Yes. I do not know if it would be different to step on. To step on the glass, I am sure it also contributes to global warming, so we have to be responsible, that is the campaign]

Extract (7), which took place during writing task one, shows a lexical and unresolved LRE. In turn 1, Moira (L2 learner) asks for the Spanish translation for the word 'mercy.' She provides the word '*merezca,*' but she knows it is incorrect. Silvia (HL participant) declares that she does not remember the word and does not provide other options,

showing little engagement. As they do not try to provide more answers and move on with the task, both seem not to be engaged with this LRE and for this reason it was coded as a limited-limited LRE.

(7) 1. Moira: *Sugiero que me da* um like mercy, *¿merezca? No eso es* different
[I suggest that you to give me um like mercy, deserves? no that is different]

2. Silvia: Um, *no recuerdo, recomiendo que te calmes y también como pienses un poco*
[Um, I do not remember, I recommend that you calm down and like think a little]

3. Moira: *También recomiendo que te calmes*
[I also recommend that you calm down]

4. Silvia: *El hombre le dijo. Es necesario que no me mates*
[The man told him. It is necessary that you do not kill me]

Excerpt (8) shows a pronunciation LRE. During writing task one, Bahia (L2 learner) says the word '*conocio*' without emphasizing the accentuation of the last vowel. In turn 2, Maria (L2 learner) corrects her partner by providing the correct pronunciation of the word and Bahia acknowledges her mistake and repeats the word emphasizing the accentuation of the last vowel. This LRE was coded as a correctly resolved and elaborate LRE.

(8) 1. Bahia: *Podemos escribir que* um *no sé, que hace dos meses ella tuvo* umm *conocio, conocio*
[We can write that umm I do not know, that two months ago she had umm met, met]

2. Maria: *ConociÓ*
[She met]

3. Bahia: *Sí, conociÓ a un hombre que quien es muy respetable*

[Yes, she met a man that who is very responsible]

Excerpt (9) shows an orthography LRE from an interaction on the writing task two. In line 1, Juan requests assistance from Carolina (both participants are HL learners) by asking her about the correct spelling of '*empezar*.' Carolina then provides the correct spelling (turn 2) and both participants move on with the task. This LRE was coded as correctly resolved and elaborate.

(9) 1. Juan: *Una de las primeras cosas que tienes que empezar a hacer. Empezar* is that with an s or a z?
[One of the first things that you need to start doing is to do. To start is that with an s or a z?
2. Carolina: I think it's a z. Yeah, yeah
3. Juan: Okay, thanks. *Debes empezar a ser más sociable*
[Okay, thanks. You have to start being more sociable]

In Excerpt (10), which took place during writing task one, Lucas—the L2 learner—initiated a morphosyntactic LRE which was resolved in a target-like manner by the HL learner, Gabriela. This interaction was coded as a correctly resolved and elaborate morphosyntactic LRE, where the L2 learner was considered the initiator and the HL learner was coded as the supplier.

(10) 1. Lucas: Yeah. *Recomiendo que levantes, levantanse* or *levántense*
[Yeah. I recommend that you lift, you (plural) stand up or you (plural) get up]
2. Gabriela: Or is it *recomiendo que ellos se levanten*? right?
[Or is it I recommend that they get up? right?]
3. Lucas: Yeah, I'm never sure with this (laughs)
4. Gabriela: Yeah (laughs)
5. Lucas: Like reflexives but

6. Gabriela: So we used two

7. Lucas: *Que ellos se levanten ahora*
[I recommend that they get up now]

CREs included all instances where participants do not talk about TREs or LREs but about the characters, scenarios, and events (Kos, 2017). Excerpt (11), which took place during writing task one, provides an example of a CRE from the data. Both L2 participants perform the task, without deliberating about the task itself, or about their language choices.

(11) 1. Margarita: *Es como la muñeca es mágica*
[It is like the doll is magical]

2. Julia: *¿Qué pasa con la muñeca?*
[What is wrong with the doll?]

3. Margarita: *Umm es una muñeca muy importante y umm se rompe en, es como para su trabajo, él necesitaba comprar una muñeca cara para la hija de su jefe*
[She is a very important doll and umm the doll is broken, it is like for his job, he needed to buy an expensive doll for his boss' daughter]

4. Julia: Oh okay, so, umm, okay

5. Margarita: *Es un hombre más pobre*
[He is a poorer man]

6. Julia: *Sí*
[Yes]

7. Margarita: *Y él tiene un um jefe muy rico, umm*
[And he has a very rich boss, umm]

Fourth Stage of Data Analysis: Quantifying the Oral Production

In this stage, I quantified the contribution of each participant to the pair talk, during task completion, by counting the number of conversational turns produced by each participant over the four writing tasks. A turn began when a learner started talking and finished when his/her partner began a new utterance. The results for the 12 dyads are presented in Table 4 below. I decided to use the number of turns rather than word count because during the interactions, participants often read task instructions and eliminating these from the pair talk would affect the ecological validity of the interactions. Also, I counted the turns that included phatic utterances because they were prevalent in the data. According to Storch (2001b), phatic expressions are utterances that have no content, but they are usually used to maintain a comfortable, smooth conversation (p. 174). Furthermore, she explained that in the literature on learner interactions, the expressions coded as phatic utterances have varied from study to study. For example, some expressions included in previous studies are: "mm, yeah, ok, oh, uh-huh, right, yep, eh" (Storch, 2001b, p. 175). According to Jakobson (2006), phatic utterances are used "to establish, to prolong, or to discontinue communication, to check whether the channel works, to attract the attention of the interlocutor or to confirm his continued attention" (p. 50). Moreover, Malinowski (2006) explained that phatic utterances are used primarily to establish bonds of personal union between a hearer and a speaker. Even though Storch (2001b, p. 175) explained that these bonds can also be established through non-verbal cues (e.g., facial expressions, hand gestures, etc.), the vocalized phatic utterances between participants in this study were significant given the reliance on audio tape data. As in Storch's (2001b) study, some of the most predominant phatic utterances found in

the data seemed to serve different functions. For example, some served to acknowledge the partner's contribution (e.g., 'yeah', 'ok'). Others served as confirmation or agreement in response to request for confirmation (e.g., 'yeah,' 'okay,' 'right') and others served to request clarification, to encourage the speaker to continue, or to sign doubt (e.g., 'Hmm?' 'Umm'). As Storch (2001b) has pointed out, it is not always easy to determine the function of the utterance; thus, I had to rely on other features, such as the intonation patterns of the speaker, to determine the function of the phatic utterance.

Since this study focuses on participants' engagement with other's talk during task completion, the phatic utterances included in the analysis were those made in response to the other participant as in when a participant confirmed his/her partner's contribution (e.g., yeah, right). For example, in Excerpt (12), the phatic expressions in turn 2 ('yeah') and 7 ('yeah') were included in the analysis because they seem to signal acceptance and confirmation in response to the partner's suggestion. However, phatic expressions similar to the one in turn 3 ('umm') were excluded from analysis because it seemed to reflect on the learner's deliberation, which was not necessarily addressed to the other learner.

(12)
1. Fatima: They need to be educated. Okay, so what is like gentle? Or just *amable*, friendly
2. Maritza: Yeah
3. Fatima: We need a different word umm
4. Martiza: So how do we say, *sueña*?
   [So how do we say he dreams]
5. Fatima: No idea
6. Martiza: Is it like to dream?
7. Fatima: Yeah

Table 4. Number of conversational turns

Pair number	Type of learner	Name	Task 1	Task 2	Task 3	Task 4	Total
Pair 1	HL	Angelo	23	20	46	27	116
	HL	Jenny	20	17	46	28	111
Pair 2	HL	Juan	36	42	8	22	108
	HL	Carolina	37	41	3	23	104
Pair 3	HL	Carly	41	11	13	15	80
	HL	Blanca	39	10	14	15	78
Pair 4	HL	Jessica	28	8	27	19	82
	HL	Marco	29	8	26	20	83
Pair 5	HL	Gabriela	27	36	27	21	111
	L2	Lucas	27	37	28	20	112
Pair 6	HL	Isa	17	15	34	26	92
	L2	Driana	18	17	34	25	94
Pair 7	HL	Jasmin	45	6	13	13	77
	L2	Brason	41	6	11	13	71
Pair 8	HL	Silvia	25	19	18	20	82
	L2	Moira	25	18	18	19	80
Pair 9	L2	Maria	38	30	16	16	100
	L2	Bahia	36	34	19	16	105
Pair 10	L2	Maritza	24	36	22	17	99
	L2	Fatima	24	35	21	17	97
Pair 11	L2	Julia	23	12	22	18	75
	L2	Margarita	25	11	21	18	75
Pair 12	L2	Katy	26	10	8	5	49
	L2	Briana	29	9	8	4	50

Fifth Stage of Data Analysis: Micro-genetic Analysis

In this stage, I assigned each episode (task-related episodes, language related episodes, and content related episodes) to one of the patterns of interaction from a list of predetermined categories found in previous studies (Kos, 2017; Storch 2001b, 2002) and described in Table 5 below.

Sixth Stage of Data Analysis: Pre-test and Post-tests Data

The final stage of data analysis was aimed at comparing the learning gains from student interaction. Results from the pre-test were compared with the immediate and the delayed post-tests to analyze student use of the target structure. Each test had a total of 25 questions. Each correct answer earned one point. For each unanswered, wrong or incomplete answer one point was deducted.

Description of Analysis and Coding Procedures for Each Research Question

In this section, I explain in detail the analytical procedure and coding with regards to each of my research questions.

First Research Question: Patterns of Interaction

Research question: what patterns of interaction can be found between each pair of learners?

To describe the relationship established by learners in each pair during the four writing tasks, I adopted Storch's (2001b, 2002) model of dyadic interaction for the analysis. This model identified four patterns of interaction: collaborative, dominant/dominant, dominant/passive and expert/novice based on the dimensions of *equality*, which refers to "the degree of control or authority over the task" and *mutuality*, which refers to "the level

of engagement with each other's contribution" (Storch, 2002, p. 127). Table 5 explains in detail each of these patterns of interaction.

Table 5. Patterns of interaction

Collaborative	The pair demonstrates a medium to a high degree of mutuality and equality, which means that both participants contribute to the task and engage with each other's ideas leading to resolutions that are acceptable to both participants.
Dominant/Dominant	The pair shows medium to high degree of equality but medium to low mutuality. Each participant contributes to the completion of the task but do not fully engage with each other's contribution. The pair displays traits of cooperation since there is division of labor.
Dominant/Passive	The pair displays medium to low degree of both mutuality and equality. One participant takes control of the task and there is little contribution from the other participant. Participants are not engaged with each other's suggestions.
Expert/Novice	Mutuality is medium to high, but equality is medium to low. One of the participants takes a leading role and encourages the passive participant to contribute to the task.

Each transcript of pair interaction on each of the four writing tasks was coded independently. I characterized the overall contribution of each dyad member for each task as collaborative, dominant/dominant, dominant/passive, and/or expert/novice based on the predominant pattern of interaction that he/she displayed on LREs, TREs, and CREs. Moreover, following Storch's (2001b) framework, these four patterns of interactions were distinguished by identifying a number of traits that appeared to be associated with specific patterns of dyadic interaction. Thus, learners' contributions were analyzed in detail for some of the salient traits that Storch (2001b) presented in her categories. The traits that characterized the four patterns of interactions are the following: (1) *pattern of contribution* (*2*) *decision-making behavior* (3) *nature of assistance* (4) *discourse and linguistic features* (p. 279). I will now summarize Storch's (2001b) description of the associated traits for each category and provide examples from the data in this study.

Pattern of Contribution

In the collaborative pattern of interaction, both participants are involved in all aspects of the task; however, it is not uncommon that one learner's contribution to the task is slightly higher. Similarly, in the expert/novice pattern, the expert participant contributes more to the task but at the same time, he/she encourages the novice participant to contribute as seen in Excerpt (13), where even though the HL learner makes most of the decisions (turn 1, 3, 5), she tries to get the L2 learner's perspective by asking him questions ('do you understand?, how would we begin?').

(13) 1. Jasmine: *Para irse de la casa, pensando en el con el con el idea que la que si ella se montó en este caballo que podría encontrar su papá, pero después ella,* so *este puede ser el final de la historia, like,*

ellos parando así, like *él está parando su hermana y bueno ellos se van, ¿entiendes?*
[To leave the house, thinking about the, with the idea that if she got on this horse that she could find her dad, but after she, so this can be the end of the story, like, he is stopping his sister and well, they will leave, do you understand?]

2. Brason: *Sí, pero esto es un caballito, es*
[Yes, but this is a little horse, it is]

3. Jasmine: I know, *yo sé que no es real, pero ella piensa que como ella* like, *tiene una imagina*, so I don't know. So how would we begin? ummm, umm okay, *bueno, vamos comomenzar*
[I know, I know it is not real, but she thinks that, like she, like she has an imagination, so I do not know. So how would we begin? ummm, umm okay, well, let's start]

4. Brason: ¿Y dónde están ellos?
[And where are they?]

5. Jasmine: Umm ellos están en México
[Umm they are in Mexico]

On the other hand, in the dominant/dominant pattern, one participant contributes more to the task in order to dominate the interaction while the other participant resists domination. In the dominant/passive pattern, the contribution is unequal because the dominant participant tends to make long monologues while the passive learner's participation is minimal and usually reduced to repetitions and phatic utterances.

Decision-making Behavior

In the collaborative pattern of interaction, participants add and extend on each other's contributions. They also negotiate disagreements until consensus is reached as seen in Excerpt (14). In this interaction, where both participants are HL learners, Angelo

tries to suggest a name for the organization (turn 2). However, Jenny does not seem satisfied with the suggested name (turn 3) and provides another option derived from Angelo's initial idea (turn 5).

(14)
1. Jenny: Alright so *¿qué nombre le vamos a poner? umm*
[Alright so what name are we going to give it? Umm]
2. Angelo: *¿Organización de los umm que es la, juventud?*
[Organization of the umm, that is the, youth?]
3. Jenny: *Vamos, no sé, es que en español es más difícil*
[Come on, I do not know, it's more difficult in Spanish]
4. Angelo: *Sí*
[Yes]
5. Jenny: *Umm ¿Operación Juventud?*
[Umm Operation Youth?]
6. Angelo: Okay
7. Jenny: Operation Youth
8. Angelo: *Sí. Operación*
[Yes, Operation Youth]

In the dominant/dominant pattern, both participants take an active role in the decision-making process, but disagreements are frequent, and participants often struggle to reach agreement. In the dominant/passive pattern, the dominant participant makes most of the decisions and there is little involvement from the passive participant. Similarly, in the expert/novice pattern, the expert participant is the one who makes most of the decisions. However, over time, the novice's involvement in the decision-making process increases.

Nature of Assistance

In the collaborative pattern assistance is co-constructed between learners. In the dominant/dominant pattern assistance is often discarded without much consideration. In the dominant/passive pattern, there is little assistance provided. In the expert/novice pattern, assistance is normally provided by the expert and it serves as a model for the novice who generally accepts the assistance offered. This pattern is seen in Excerpt (15), where Margarita (L2 learner) plays the expert role while Julia (L2 learner) is the novice. In turn 2, Julia requests repetition and although Margarita repeats the sentence in turn 3, Julia seems to continue having problems understanding the expression '*sentido de humor'* (turn 4). In turn 5, Margarita seems to realize that repeating the expression is not enough for Julia to understand it. Thus, she decides to provide an explanation and replaces '*buen sentido de humor'* with the word *'cómico.'*

(15) 1. Margarita: *Buen sentido de humor*
[Good sense of humor]
2. Julia: *¿Una vez más? Lo siento*
[Once again? I'm sorry]
3. Margarita: *Umm que él, umm, quiero que él tenga un buen sentido de humor*
[Umm that he, umm, I want him to have a good sense of humor]
4. Julia: *¿Sentido de humor?*
[sense of humor?]
5. Margarita: *De humor, sí. Es muy importante. Si él no es cómico, no me gusta*
[Of humor, yes. It's very important. If he's not funny, I do not like him]

Discourse and Linguistic Features

In the collaborative pattern there is a high frequency of requests, questions, explanations, repetitions, instances of collaborative completions, simultaneous talk, and use of phatic utterances. There is also a high proportion of first-person plural pronouns (we) as seen in Excerpt (16), where both L2 learners use the first-person plural pronoun seven times. Also, in this interaction there are examples of phatic utterances used to sign confirmation (turn 4), to sign doubt (turn 8), or to encourage the speaker to continue (turn 10).

(16)
1. Maritza: **We** should
2. Fatima: How do **we**, how do **we** use these expressions?
3. Maritza: So **we** should write a paragraph and include all of these
4. Fatima: Yeah
5. Maritza: *Uno de los hombres es violente*
   [One of the men is violent]
6. Fatima: *Y umm los otros tienen mucho miedo, tienen mucho miedo*
   [And umm the others are very afraid, they are very afraid]
7. Maritza: So **we** just, uh, okay, so **we** can just say like, **we** can probably use one of these
8. Fatima: Um
9. Maritza: *Oh el hombre violente insiste que*
   [Oh the violent man insists that]
10. Fatima: Oh, oh, oh, good, good, good

On the other hand, in the dominant/dominant pattern there is a low frequency of requests and explanations and few instances of collaborative completions and simultaneous talk. There is predominance of first person singular and second person pronouns. In the dominant/passive pattern, there are few explanations and instances of

collaborative completion and simultaneous talk. Also, there is a large number of second person pronouns. In the expert/novice pattern, participants produce a high frequency of requests and questions that elicit lengthy explanations. Also, there is a high frequency of other repetitions, collaborative completions, simultaneous talk and phatic utterances, which serve to encourage the novice to contribute to the interaction.

These examples illustrate how I analyzed for patterns of interaction across the four writing tasks. The pair talk was coded for these traits and each pair of participants was then matched with one of the four patterns of interaction for each task. This process of analyses required me to revise the data several times in order to compare the initial coding and notes from the early phases of analysis to the later stages.

The following Excerpt (17) exemplifies the analysis of the pair talk for patterns of interaction including the above-mentioned categories and codes. The excerpt comes from the interaction of Maria and Bahia, two L2 learners working on writing task one.

(17)
1. Bahia: *Me gusta la foto sobre una mujer en umm cómo se dice,* lingerie, *esta pintura, ¿puedes? ¿puedas?*
[I like the photo of a woman in umm, how do you say, lingerie, this painting, can you? Can you?]
2. Maria: *Sí*
[Yes]
3. Bahia: *Muy interesante para encontrar una mujer que no es alta y*
[Very interesting to find a woman who is not tall and]
4. Maria: *Sí, muy delgada*
[Yes, very thin]
5. Bahia: *Sí, sí, sí*
[Yes, yes, yes]
6. Maria: Okay, okay, okay, *¿cómo son las personas? Puedo escribir*
[How are people? I can write]

7. Bahia: *Yo quiero escribir también*
[I want to write too]
8. Maria: Okay
9. Bahia: Okay, *¿cómo son las personas? ¿Esta mujer umm es obeso? ¿es la palabra? ¿obesa?*
[How are people? Is this woman umm obese? it's the word? Obese?
10. Maria: *Obesa*
[Obese]
11. Bahia: *Obesa*
[Obese]
12. Maria: Yeah, *sí. Es*
[Yes. She is]
13. Bahia: *¿Morena?*
[Brunette?]
14. Maria: *Sí, es morena es obesa, es*
[Yes, she is brunette, she is obese, she is]
15. Bahia: *Ella es obesa y umm pero parece fuerte, ella tiene su pie en la cama*
[She is obese and umm but she looks strong, she has her foot on the bed]
16. Maria: Um confident is not *confiada?*
[trusting?]
17. Bahia: No
18. Maria: What is it? because I always get, I always mix that up, *¿cómo se dice?*
[How do you say it?]
19. Bahia: *Confidente, sí*
[Confident, yes]
20. Maria: Okay
21. Bahia: *Es confidente* (writing)

[She is confident]

22. Maria: *Necesitamos usar cuatro*

[We need to use four]

23. Bahia: *Sí, pero antes que escribir necesitamos umm completar los preguntas*

[Yes, but before writing, we need to complete the questions]

24. Maria: Alright

25. Bahia: *¿Dónde están? En un cuarto. ¿Cuál es el dilema? Yo no sé qué es el dilema*

[Where are they? In a room. What is the dilemma? I do not know what the dilemma is]

26. Maria: Umm

27. Bahia: *No sé*

[I do not know]

28. Maria: *¿No es aceptada en su cultura?*

[Is she not accepted in her culture?]

29. Bahia: *Sí, sí, sí, sí. Umm*

[Yes, yes, yes, yes.]

30. Maria: Okay, for *¿cómo son las personas?* umm like, I don't know, like *ansiosa,* or *nerviosa* and then *como para verse*, okay hold on, let me fix it

[how are people? She is anxious, or nervous and then like to see herself]

31. Bahia: *Podemos decir que ella umm deba ser paciente y cuando personas hablan de ella necesita hacer ejercicio o cosas como eso umm sí.* Okay, all right, *la historia. Es muy difícil porque no es una historia aquí, es solamente una mujer porque en otras pinturas hay una historia y muchas personas, pero está bien*

[We can say that she umm must be patient and when people talk about her, she needs to exercise or things like that umm yes. Okay, alright, the story. It is very difficult because it is not a story here, it

is only a woman because in other paintings there is a story and many people, but it is good

32. Maria: Right

In the above interaction, Bahia contributes slightly more to the task than Maria. However, it is evident that Maria is actively involved in all aspects of the task and both learners work together to make decisions usually by adding on or completing each other's contributions (e.g., turn 3, 4, 13, 14, 27, 28) and negotiating ideas or plans until they both reach an agreement (e.g., turn 16, 17, 18, 19, 20). Learners provide assistance to each other by co-constructing ideas (e.g., turn 3, 4, 13, 14, 22, 23). Furthermore, the interaction shows that most resolutions are acceptable to both learners and that they tend to use a high frequency of questions (e.g., turn 6, 9, 13, 16), phatic utterances, which are often used to acknowledge each other's contributions (e.g., turn 2, 5, 8, 12, 14, 29), and a predominance of first-person plural pronouns (e.g., turn 22, 23, 31). Also, learners seek confirmation to reach mutually acceptable resolutions, which is reflected through phatic utterances made in response to confirmation requests (e.g., turn 3, 5, 8, 12, 14, 29). Suggestions are often repeated to show acceptance or agreement (e.g., turn 9, 10, 11, 12). Based on those features, the interaction is relatively high in mutuality and equality because the learners provide support to each other through dialogic interaction. This interaction reveals that both participants act as equal novices and they do not try to assert their expertise. Therefore, this dyadic interaction was categorized as collaborative.

The following Excerpt (18) exemplifies the analysis of a different pattern of pair talk. The excerpt comes from the interaction between Juan and Carolina, two HL learners working on writing task three.

(18) 1. Juan: We need a customer representative

2. Carolina: Oh my god

3. Juan: It's going to be a law firm. We need things that we can talk about. So umm *una cooperativa que, o estamos buscando a un representante para servicio al cliente. Estamos buscando, tiene que hablar inglés, español, y portugués. Estamos buscando a un representante para hacer*

[So umm a company that, or we are looking for a representative for customer service. We are looking, he/she has to speak English, Spanish, and Portuguese. We are looking for a representative to do]

4. Carolina: Wait, level of education, like a bachelors

5. Juan: *Tiene que hablar inglés, español y portugués. También tiene que escribir los tres idiomas.* There are customers like, I understand their frustration, but they snap, like umm, I understand. Hay solo un último puesto apliquen rápido. Bachillerato, I am not sure how you spell it, but I think it's like that, *diploma de bachillerato,* it's like high school. *¿Cómo se escribe bachillerato? ¿Con v pequeña o b grande?* (asking the teacher)

[He/she has to speak English, Spanish and Portuguese. He/she also has to write the three languages […] There is only one last position apply fast. High school degree. […] How do you write 'bachillerato'? With small v or big b?]

6. Profesora: *Con be* (laughs)

[With a b]

7. Juan: *¿Con b grande?*

[With a big b?]

8. Profesora: *Sí* (laughs) *be o uve. La uve es la v pequeña*

[Yes, b or v. Uve is the small v]

9. Juan: *¿Así?*

[Like this?]

10. Profe: *No, con doble ele*
[No, with double ele]
11. Juan: (Laughs)
12. Profe: *Bachillerato*
13. Juan: *El diploma universitario no es requerido*
[The university diploma is not required]
14. Carolina: *¿Requerido?* Required?
15. Juan: Yeah, yeah, yeah

This dyadic interaction was categorized as dominant/passive. Juan was identified as the dominant learner while Carolina was the passive partner. In this interaction, there was low equality and low mutuality. Juan contributes much more to the task than Carolina. In fact, it seems that Juan completed the task mostly on his own with little or no assistance from Carolina. The excerpt shows that in turns 1, 3, 5, and 13, Juan completes the task without involving Carolina in the process. Juan's turns are long monologues where he constructs the text by himself. He deliberates over choices of spelling (turns 5, 7, 9) but he does not seek nor receive assistance from Carolina but from the instructor. Although he uses first-person plural pronouns (turns 1, 3), there are no expectations of a reply from Carolina. The passive learner seems to accept Juan's contributions without challenging any of them. Also, she rarely contributes to the task and when she does, she uses English rather than her heritage language. Some of Carolina's interventions are to ask for clarification (e.g., turn 14). In the observation notes, I noted that Juan seems to do most of the talking and writing while Carolina copied his ideas. Also, I observed that most interactions between these two learners occurred in English. Therefore, the excerpt reveals that Juan takes control of the task and there is little contribution from Carolina.

The analysis of these two interactions exemplifies the way I analyzed all pairs for patterns of interaction for each task. I coded the LREs, TREs, and CREs for these traits and I matched each pair with one of the four patterns of interaction described above.

Second and Third Research Questions: LREs during Peer Interaction

As mentioned earlier, previous studies have shown a positive relation between the quantity of LREs and language learning gains (e.g., Dobao, 2016; Storch 2002). From a sociocultural theory perspective, LREs benefit students' learning experience because they stimulate an exchange of ideas, expose learners to new perspectives and peer feedback (Storch, 2017). LREs also mediate assistance because as learners reflect on the language they are producing, they often seek, provide and receive assistance from their peer (Swain & Lapkin 1998). However, when learners act competitively rather than collaboratively, the supportive scaffolding and the transfer of L2 knowledge is significantly reduced (Storch, 2002). Therefore, in this study it was important to analyze the occurrence and characteristics of LREs because they serve to understand the effect of specific patterns of interaction on L2 and HL learners' language development. To answer the second research question: to what extent do dyads engage in LREs during task-based interaction? I coded all LREs across the four writing tasks. They were coded according to nature, outcome, level of engagement, and which learner initiated them as operationalized in the third stage of data analysis described above. Also, I used this categorization for each LRE produced during task completion to answer the third research question: what are the characteristics of the LREs that appear? Furthermore, as in Philp, Walter, and Basturkmen (2010), I calculated the number of conversational turns involved in each LRE.

Fourth Research Question: Participant Learning Gains

Previous studies have acknowledged the need to compare beginning and end-of-unit outcomes to investigate which instructional tools are most effective for HL and L2 learners. For example, Montrul and Bowles (2017) have argued that research should include both immediate and delayed post-tests to examine whether certain instructional features have an impact on student learning. Therefore, to determine the impact of the task-based interactions between each pair of learners, in the present study, individualized post-test and delayed post-test data were compared to pre-test data. As explained earlier, each test had a maximum score of 25 points. For each unanswered, wrong or incomplete answer, one point was deducted from the total score. However, the most important factor that I took into consideration, during grading, was mood selection (indicative/subjunctive). Therefore, no points were deducted when an answer included a correct mood selection but had some vocabulary errors. Nevertheless, points were deducted when there were spelling errors. For instance, with a verb like *recordar* if a context required subjunctive but the student wrote *recorde* instead of *recuerde*, it was counted as incorrect.

Inter-rater Reliability

I transcribed and coded all data. After coding each transcript, I asked an independent second rater to code part of the data. The rater was my colleague, a native Spanish speaker and an experienced college-level instructor of Spanish as a foreign language. He is currently a Ph.D. candidate in Spanish Linguistics who has worked for more than seven years in the same university where data were collected. He has taught different levels of Spanish classes including the Composition course. Therefore, he is

familiar with the context of the study. This second rater coded the language related episodes (LREs), reviewed the codes, and examined the data for patterns of interaction.

First, we had an independent training session where I explained the main points of the study to the rater. Also, we discussed the definition of language related episodes, Storch's patterns of interaction, definitions of *mutuality* and *equality*, and reviewed the coding scheme for the present study. Then, we coded separately one transcript and reviewed any disagreements. Following this, the second rater coded independently 20% of the transcripts that he selected randomly (10 transcripts in total).

In the second session, we discussed and compared our coding. All instances of agreement and disagreement between the two of us were counted. Overall, inter-rater agreement was high (over 87%). However, we discussed the cases of disagreement until 100% agreement was reached on all coding categories (Bowles, 2011a). During this process of coding socialization, we found that many mismatches had to do with the identification and classification of LREs. For example, the second rater coded some rephrased LREs as a new and different LRE. However, we both agreed that the rephrasing of an LRE that had to do with the same linguistic issue did not constitute a new or different LRE.

In summary, this chapter has described my approach to analysis. It has also discussed the analytical and coding procedures related to each of my research questions, and the procedure of establishing the inter-rater reliability. Findings are described in the following chapter.

CHAPTER 6

FINDINGS AND DISCUSSION

Findings for Research Question One

This section reports on the findings related to research question one: what patterns of interaction can be found between each pair of learners? First, I will provide a summary of the overall findings based on a general analysis across the four writing tasks. Then, I will discuss the patterns of interaction found in the data and their salient traits.

Overall Findings

As noted in Table 6 below, three out of the four patterns of interaction that Storch (2001b) found in her study, which included adult and university ESL learners, were also found in dyadic interaction of university Spanish HL and L2 learners. The three distinct patterns of pair interaction identified in the present study were collaborative, dominant/passive, and expert/novice. In this study, the dominant/dominant pattern (Storch, 2001b) was not found. As described in the previous chapter, these patterns were identified based on their level of *equality* and *mutuality.* Therefore, the collaborative pattern showed a moderate to high degree of equality and mutuality in the dyad. The dominant/passive pattern displayed low equality and low mutuality, and the expert/novice pattern exhibited moderate to low equality but moderate to high mutuality. Following Storch's (2001b) methodology, each transcript of paired interaction on each of the four writing tasks was coded independently. Table 6 shows that the collaborative pattern of interaction predominated in the data. Of the twelve pairs, nine displayed this pattern across the four writing tasks. The second most common pattern of interaction found was dominant/passive.

Table 6. Patterns of dyadic interaction per task

Pair number	Type of learner	Name	Task 1	Task 2	Task 3	Task 4
Pair 1	HL	Angelo	Collab.	Collab.	Collab.	Collab.
	HL	Jenny	Collab.	Collab.	Collab.	Collabo.
Pair 2	HL	Juan	Dominant	Dominant	Dominant	Dominant
	HL	Carolina	Passive	Passive	Passive	Passive
Pair 3	HL	Carly	Collab.	Collab.	Collab.	Collab.
	HL	Blanca	Collab.	Collab.	Collab.	Collab.
Pair 4	HL	Jessica	Collab.	Collab.	Collab.	Collab.
	HL	Marco	Collab.	Collab.	Collab.	Collab.
Pair 5	HL	Gabriela	Collab.	Collab.	Collab.	Collab.
	L2	Lucas	Collabo.	Collab.	Collab.	Collab.
Pair 6	HL	Isa	Collabo.	Collab.	Collab.	Collab.
	L2	Driana	Collab.	Collab.	Collab.	Collab.
Pair 7	HL	Jasmin	Expert	Pasive	Pasive	Collab.
	L2	Brason	Novice	Dominant	Dominant	Collab.
Pair 8	HL	Silvia	Collab.	Collab.	Collab.	Collab.
	L2	Moira	Collab.	Collab.	Collab.	Collab.
Pair 9	L2	Maria	Collab.	Collab.	Collab.	Collab.
	L2	Bahia	Collab.	Collab.	Collab.	Collab.
Pair 10	L2	Maritza	Collab.	Collab.	Collab.	Collab.
	L2	Fatima	Collab.	Collab.	Collab.	Collab.
Pair 11	L2	Julia	Passive	Passive	Novice	Collab.
	L2	Margarita	Dominant	Dominant	Expert	Collab.
Pair 12	L2	Katy	Collab.	Collab.	Collab.	Collab.
	L2	Briana	Collab.	Collab.	Collab.	Collab.

Table 6 shows that Juan and Carolina (Pair 2) displayed a dominant/passive pattern of interaction on all four writing tasks, while Jasmin and Brason (Pair 7) showed this pattern only on tasks two and three. Julia and Margarita (Pair 11) also represented a dominant/passive pattern on two tasks, tasks one and two. The expert/novice pattern represented the interaction of two pairs: Jasmin and Brason (Pair 7) on task one, and Julia and Margarita (Pair 11) on task three. These results suggest that most patterns of interaction between each pair of learners were fairly stable. For ten of the pairs, the pattern of interaction they established during the first task remained steady during the other three tasks. However, there were two pairs—Jasmin and Brason (Pair 7) and Julia and Margarita (Pair 11)—that displayed a more dynamic pattern of interaction. They showed an expert/novice and a dominant/passive pattern on the first three tasks, but they developed a collaborative pattern on the last task.

Some of these results differ from those of previous studies that have found that matched dyads exhibited a collaborative pattern, whereas the mixed dyads showed more diverse patterns of interaction (Walls, 2018; Young & Tedick, 2016). On the other hand, findings in the present study illustrated that one of the matched dyads (Julia and Margarita, Pair 11) displayed dynamic patterns of interaction even though both participants were L2 learners. Furthermore, three out of the four mixed dyads in this study— (Pair 5, 6, and 8)—engaged in collaborative dialogues. Thus, based on previous studies, I had anticipated that most interactions between HL and L2 learners would likely display asymmetrical relationships such as expert/novice or dominant/passive (Storch, 2001b), but results showed that only one mixed dyad (Pair 7) displayed an asymmetrical and dynamic pattern of interaction. It is significant that this pair was particular because

the HL learner showed an expert role on the first task, but a passive role on the two other tasks, while the L2 learner displayed a dominant pattern of interaction. The in-depth examination will describe the interactional patterns of these learners.

The following section will illustrate the three patterns of interaction found in the data and some of the salient traits associated with each of these patterns.

Collaborative Pattern

The collaborative pattern of interaction predominated in the data. Nine out of twelve pairs displayed this pattern across the four writing tasks. The main distinguishing traits of collaboration include an equal level of engagement with the completion of the task and a high level of negotiation (Storch, 2001b, p.185). Excerpt (19) illustrates this collaborative pattern. It shows how Carly and Blanca (both are HL learners) interacted during writing task one, which required the creation of a short story based on a picture.

(19)
1. Carly: *Okay, me gusta esto, estos*
   [Okay, I like this, these]
2. Blanca: *¿Esta muñeca?*
   [This doll?]
3. Carly: *Creo que, cre, que yo tenía una muñeca así. Es muy pequeña, pero puede ser una persona, una bebé*
   [I think, I had a doll like that. It is very small, but it can be a person, a baby]
4. Blanca: (Laughs) *sí*
   [Yes]
5. Carly: Umm
6. Blanca: Umm *puede ser que solo um que su niña pequeñas umm se corrió de la casa y están umm*
   [It may be that only umm that their little girl umm ran from the house and they are umm]

7. Carly: *¿Preocupados? Están preocupados de si, ¿desapareció? estoy de acuerdo. Desapareció*
[Worried? Are they worried about, did she disappear? I agree. She disappeared]

8. Blanca: *Aha*

9. Carly: So, *¿queremos hacer esto?*
[Do we want to do this?]

10. Blanca: *Aha*

11. Carly: Okay, *una niña* (writing), *¿qué dijimos? desapareció, oh, se desapareció de su casa*
[a girl (writing), what did we say? She disappeared, oh, she disappeared from her house]

12. Blanca: *Um él hizo las pinturas para hablar de um cosas ¿políticas?*
[He did the paintings to talk about political things?]

13. Carly: *Umm de sociales, temas sociales, umm. Puede ser como, como un secuestro porque*
[Umm about social, social issues, umm. It can be like, like a kidnapping because]

14. Blanca: *Umm, um países, como se dice, tra, ¿tráfico? ¿sabes lo que estoy usando?*
[Umm, um countries, how do you say, tra, trafficking? Do you know what I'm using?]

15. Carly: *Sí, tráfico, umm, ehh, ¿menores?*
[Yes, trafficking, umm, ehh, minors?]

16. Blanca: *¿De menores?*
[Child trafficking]

17. Carly: *Para sexual*
[For sexual]

18. Blanca: *De trabajo, sexual*
[For work, sexual]

19. Carly: Yeah, *sí, pienso que sería muy buen historia* (laughs)

[Yes, I think it would be a very good story]

20. Blanca: *Porque si es algo, puede ser en ¿México verdad?*
[Because if it's something, it could be in Mexico, right?]

21. Carly: *Aha. Esto es en México, ¿verdad?* (asking the teacher)
[Aha. This is in Mexico, right?]

22. Profesora: *Sí*
[Yes]

23. Carly: *Umm sí pienso que puede, que puede ser*
[Umm yes, I think it can, it can be]

24. Blanca: *So, ¿cómo quieres empezar la historia?*
[So, how do you want to start the story?]

25. Carly: *Umm los padres llegan a la casa*
[Umm the parents come to the house]

26. Blanca: *Y solo para después de su trabajo*
[And only after work]

27. Carly: *Sí, y umm, ¿cómo se dice umm la nana?*
[Yes, and umm, how do you say umm the nanny?]

28. Blanca: *¿Niñera?*
[Babysitter?]

29. Carly: *Sí, niñera, es un su, podemos decir que cuando llegan a la casa, la niñera estaba golpeada y dice que se llevaron a la niña*
[Yes, babysitter, it's a, we can say that when they get to the house, the babysitter was beaten, and she says they took the girl]

30. Blanca: (Laughs) okay

31. Carly: So, *empezaremos, los padres llegaron a casa y* (writing) *se enteran*
[So, we'll start, the parents came home and (writing) they find out]

32. Blanca: *Se enterarón que*
[They found out that]

33. Carly: *Enteraron que la niñera estaba golpeada* (writing). *Okay, ¿cómo se dice cuando no estás consciente? cuando ¿estás desmayado?*

[They found out that the nanny was hit (writing). Okay, how do you say when you're not conscious? when you faint?]

34. Blanca: Umm no, umm
35. Carly: *¿Cómo se dice cuando estás como no consciente?* (asking the teacher)
[How do you say when you are like non-conscious?]
36. Profesora: *Inconsciente*
[Unconscious]
37. Blanca: (Laughs)
38. Carly: (Laughs)
39. Blanca: *Se entraron en la casa*
[They went into the house]
40. Carly: *Sí, y se enteran que la niñera está golpeada y que está inconsciente y luego*
[Yes, and they find out that the nanny is beaten and that she is unconscious and then]
41. Blanca: *Y miran que su niña, umm, también se ¿suponguen? o se umm se*
[And they see that their girl, umm, also be suppose? or]
42. Carly: *Podemos decir que luego de buscar por la casa a la niña no la encuentran y*
[We can say that after searching the house for the girl they do not find her and]
43. Blanca: *Y solo encuentran su muñeca que ¿está en el piso*?
[And they only find her doll that is on the floor?]
44. Carly: *Sí. Luego buscan a su hija, solo encuentran su muñeca*
[Yes. Then they look for their daughter, they only find her doll]

One salient feature in the above interaction is that both learners are actively involved in all aspects of the task. They co-constructed the text by completing each other's utterances and ideas (e.g., turn 6, 7, 12, 13, 14, 15, 25, 26, 39, 40, 42, 43) or by rephrasing each

other's suggestions (e.g., turn 12, 13, 43, 44), which showed that participants did not want to assert their expertise but rather play an equal role as novices.

Furthermore, the suggestions that one partner made were often repeated by the other learner to show acceptance (e.g., turn 14, 15, 28, 29, 32, 33, 43, 44). Also, both learners accepted each other's contributions via phatic utterances made to follow suggestions (e.g., turn 8, 10, 21) and sometimes, a high level of agreement was expressed by using the word 'yes' in both Spanish and English (e.g., turn 19). In this collaborative interaction, there is also a high frequency of questions (e.g., turn 7, 9, 11, 12, 14, 16, 20, 24) and a predominance of first-person plural pronouns 'we' or 'us' (e.g., turn 9, 11, 31, 42). According to Storch (2001b), these pronouns are used to express "a joint ownership and responsibility toward task completion" (p. 190). During language related issues, data showed that learners usually requested the assistance of their partner (e.g., turn 27, 28) before using other available resources such as online translators, dictionaries, other learners or the teacher. They also requested assistance from the teacher only after confirming that the partner could not provide this assistance (e.g., turn 33, 34, 35). Another distinctive feature of this collaborative interaction between the two HL learners is that the number of conversational turns and the length of each utterance is relatively similar for both learners.

A significant difference between HL-HL and L2-L2 pairs, who exhibited a collaborative pattern of interaction, is that L2-L2 pairs tended to use English more often than HL-HL pairs. Spanish second language learners used their L1 as "metalanguage" (Lantolf, 2012, p. 62) to organize their ideas before writing them in their L2. For example, Excerpt (20) below shows how the two L2 learners—Maritza and Fatima—

interacted during the writing task two. The interaction illustrates that learners used their L1 mainly as a tool to discuss what needed to be done (e.g., turn 5), to explore their ideas (e.g., turn 13), to expand the content of their composition (e.g., turn 17, 19), and to show a high level of agreement with the partner's contributions and ideas (e.g., turn 12, 17).

(20)
1. Maritza: *Necesitas usar el Internet*
   [You need to use the Internet]
2. Fatima: Or *es necesario que*
   [Or you need to use]
3. Maritza: *Sí*
   [Yes]
4. Fatima: *Que uses*
   [That you use]
5. Maritza: *Aha, el Internet.* Okay, now something about *tengo miedo*
   [Aha, the Internet. Okay…about I'm scared]
6. Fatima: Yeah like
7. Maritza: *¿Tiene miedo?*
   [She is afraid?]
8. Fatima: Umm *sugiero que no tengas*
   [I suggest you do not be]
9. Maritza: Or like *espero que, no te preocupes, ¿tengas? Tengas*
   [I hope you do not worry, you do not have? Have]
10. Fatima: Yeah
11. Maritza: Or *es importante que*
   [It is important that]
12. Fatima: Yeah, that's what I was thinking, yeah, yeah
13. Maritza: *Es importante que no tengas miedo porque* we could say the men would think the same thing as you
   [It is important that you do not be afraid because…]
14. Fatima: Like *todos los hombres también quieren una relación*
   [all men also want a relationship]

15. Maritza: *Porque todos los hombres quieran la misma ¿relación? Oh, quieren*
[Because all men want the same relationship? oh, want]
16. Fatima: *Tu que siempre*
[You who always]
17. Maritza: Yeah yeah, umm, like I know you won't be single forever, or you won't be lonely forever
18. Fatima: Aha
19. Maritza: So, good luck, yeah, okay
20. Fatima: Yeah, good luck
21. Maritza: *¿Dudo que, estés?*
[I doubt that, you are?]
22. Fatima: So *dudo que siempre estés soltera*
[I doubt that you are always single]

The HL-L2 pairs in the study also used English more frequently than HL-HL pairs to mediate the activity, particularly when learners were engaged in solving a specific linguistic issue. In Excerpt (21), Gabriela (HL learner) and Lucas (L2 learner) are working on writing task three. In turn 3, the HL learner clearly addressed the problem of accessing the correct linguistic item. In turn 4, the L2 learner assisted the HL by providing a solution to her linguistic issue in Spanish and offering an explanation using English, his L1. However, in turn 5, the HL learner offered an alternative solution to her linguistic issue. Then, she repeated the solution that her partner offered earlier and tried to provide another explanation using her partner's L1. However, she does not complete her explanation because in turn 6, Lucas interrupted her to confirm and validate her last utterance. Interestingly, after confirming Gabriela's last linguistic choice, Lucas used the expression "I do not know," which could suggest that he was unsure about that linguistic

choice or that due to the collaborative nature of their interaction, he did not want to impose his point of view.

(21) 1. Gabriela: We started off, like funny and we are now talking about physical characteristics (laughs) umm umm what is like gentle? *cariñoso?* or just *amable* for this guy or girl. *Y que le gusta, guste, los perros porque tengo 20,* no (laughs)
[… And that he/she likes, likes, dogs because I have 20]

2. Lucas: Okay (laughs)

3. Gabriela: *¿Que le guste, le gusta, que le gusta los perros?*
[That he likes dogs?]

4. Lucas: *Que le gusten*, I think because there is *perros* which is plural, it would be plural

5. Gabriela: *Le gustan*? I don't know, it's gusten right? because it is like

6. Lucas: Yeah, I don't know

7. Gabriela: Gusten *los perros*
[that he likes dogs]

To sum up, the patterns of interaction exhibited in the above excerpts were labeled as collaborative. The pairs identified as collaborative were engaged with each other's contributions, provided assistance to each other, and discussed and resolved language related issues together using their available resources. These actions were indicative of a high degree of equality and mutuality.

Dominant/Passive Pattern

The dominant/passive pattern of interaction was manifest in the pair talk of three pairs: Juan and Carolina (Pair 2), Jasmin and Brason (Pair 7), and Julia and Margarita (Pair 11). However, only one of these pairs—Juan and Carolina— displayed this pattern across all four writing tasks, while the other two pairs displayed this pattern only on two

tasks. The main distinguishing trait of this pattern is that there is low equality and low mutuality.

In this pattern of interaction, the dominant partner takes control of the task while the other stays compliant. Furthermore, there is a lack of negotiation between learners because the passive partner does not contribute much to the task or challenge the dominant learner. These traits are illustrated in Excerpt (22), which shows Juan and Carolina working on task one. Although the frequencies of Carolina's and Juan's contributions were similar in this interaction, the nature of the interaction differed considerably.

Juan assumed ownership of the task and proceeded to complete it without using Carolina's contributions or ideas. Transcribed data revealed that there were some occasions in which both participants seemed actively engaged in the activity, which was demonstrated by taking turns to read aloud the instructions in order to clarify the assignment requirements (e.g., turn 1, 4, 7) and by the laughter and supportive comments they provided each other (e.g., turn 35, 36, 37, 38). However, the transcript also revealed that even though Carolina took opportunities to express her ideas, only Juan's ideas were reflected in the final version of the composition. For example, in turn 3, Carolina expressed that they needed to give names to their characters, and she suggested the names Elena and Joe. Nonetheless, Juan ignored that utterance and in turn 24, he expressed the same need, even though Carolina had already expressed it. In the end, Carolina accepted all the names that Juan suggested for their characters and she seemed excited about her partner's contributions (e.g., 26, 30, 31, 32, 33, 35, 36, 37, 38). There were other

occasions where Juan ignored Carolina's contributions, as seen in turns 14, 15, 18, and 19.

Furthermore, even though it was clear that the teacher directed all students to work collaboratively to complete the task, Juan suggested that they should complete the task independently at the beginning of the interaction (turn 4). After Carolina and the teacher confirmed that they had to work as a group (turn 5, 6), he insisted that they would write their stories independently (turn 39). Even though Carolina agreed to write her story on her own (turn 40), the composition she returned was the same composition that Juan wrote.

This interaction illustrated that learners did not deliberate about language, they did not use the target language much, and they did not seek or provide each other with assistance. Furthermore, it seemed that Juan exhibited limited engagement with the suggestions that Carolina made and that she took a passive role through questions and repetitions of Juan's responses and ideas.

(22)
1. Carolina: I like this one. They are all drunk *¿Cómo son las personas?* (Reading instructions) *son gordos* [how are the characters… they are fat]
2. Juan: Hmm *las personas son gruesas* [the characters are heavy]
3. Carolina: Upps *un poco*. Do we have to give them names*? ¿Quiénes son las personas?* (Reading instructions) Elena, Joe, umm. It's a gang, gang, gang, gang. [a little… who are the characters?]
4. Juan: We pick two different ones, right? You pick one and I pick one? or do we need to pick the same one?
5. Carolina: I think we do it together, right?
6. Profesora: *Sí, los dos lo hacen juntos pero los dos tienen que escribir*

y me lo entregan, por favor [Yes, the two of you do it together but you both will have to write and will give it to me, please]

7. Juan: All right, all I wrote was *las personas son obesas*. *¿Quiénes son las personas?* (Reading instructions) [the people are heavy. Who are the people?]
8. Carolina: Their game
9. Juan: *Son seis hermanos obesos*
[they are six obese brothers]
10. Carolina: Okay (laughs)
11. Juan: Oh we gotta give it to her?
12. Carolina: Yeah
13. Juan: *Están en*. I'm just gonna put in their backyard (laughs)
[they are in]
14. Carolina: Okay (laughs). After a barbeque
15. Juan: *Están en el patio*
[they are in the backyard]
16. Carolina: *Están en el patio* (writing) *¿cuál es el dilema?* (Reading instructions)
17. Juan: *Comieron mucho y ahora tienen pereza*
[They ate a lot and now they are lazy]
18. Carolina: *Tienen el aires* (laughs). *Ellos van a dormir por una semana*
[they have gas… they are going to sleep for a week]
19. Juan: *Tienen que dormir el resto del día*
[they have to sleep the rest of the day]
20. Profesora: *Recuerden usar las expresiones*
[remember to use the expressions]
21. Carolina: Oh. Great, we gotta use these words and answer all these questions?
22. Juan: We gotta start again
23. Carolina: Okay. Okay umm. *¿Cómo empezó*? (reading) *ellos tuvieron una*

fiesta para él, fue su cumpleaños y [how did it start? They had a party for him, it was his birthday and]

24. Juan: But we gotta give them names
25. Carolina: Great
26. Juan: All right. His name is Paco (laughs)
27. Carolina: I'm gonna write this (laughs)
28. Juan: Are we supposed to write on that? Are we allowed to write on that?
29. Carolina: I don't know. It's just pencil, I can erase it
30. Juan: Paco
31. Carolina: Paco (writing)
32. Juan: Pepe
33. Carolina: Pepe (writing)
35. Juan: You gotta give them the super Hispanic names, dude
36. Carolina: Pablo. Should we do all p's (laughs)?
37. Juan: Yeah yeah yeah (laughs). We are gonna do all p's but you gotta say it with a Spanish accent (laughing). All right we got one more. We gotta name him shorty but with a CH, CH (laughing)
38. Carolina: Wait how do you spell that? (laughing) CH? okay, oh my god, I can't, I'm crying. All right, *que fue el cumpleaños de Paco y tuvieron una fiesta* [it was Paco's birthday and they had a party]
39. Juan: *Paco tuvo un cumpleaños*. All right, you write your story and then I write mine, is that all right? And then we'll share [Paco had a birthday]
40. Carolina: Okay. Okay

On the other hand, Jasmin (HL learner) and Brason (L2 learner) showed a more dynamic pattern of interaction across all four tasks. On the first task, Jasmine took the role of the expert and Brason took the role of the novice as seen earlier in Excerpt (13) above. However, this pattern changed considerably on the second task because a

dominant/passive pattern of interaction was found in their pair talk. Excerpt (23) comes from the interaction during the writing task two. The interaction begins by Brason choosing one fictional scenario from the options given. In turn 4, Brason expressed that he decided to choose the last option without seeking Jasmine's agreement. Moreover, data showed that there was an unequal contribution to the task because Brason, the dominant peer, made longer monologues (e.g., turn 6, 8), while Jasmin's participation was minimal, and it was reduced to questions or repetitions (e.g., turn 7,11). The utterances that Brason expressed on turns 6, 8, and 12 were the only ones included in the composition. This indicates that although Jasmin made some contributions to the task (turn 9, 11), he did not involve her ideas in the text. In fact, the composition they handed suggested that they wrote their composition independently as the two versions were slightly different.

(23)
1. Jasmine: ¿Umm *quieres hacer la primera* or not?
   [do you want to do the first or not?]
2. Brason: Umm
3. Jasmine: *Quiere aprender español, pero no*
   [He wants to learn Spanish, but he does not]
4. Brason: *Me gusta la última*
   [I like the last one]
5. Jasmine: Okay. *Le recomiendo*
   [I recommend to him]
6. Brason: *Te recomiendo. Yo pienso que él debe hablar con ella y como preguntar a ella si ella quiere como tener una vida próspero, no como no tiene niños umm como* [I recommend you. I think he should talk to her and ask her if she wants to have a prosperous life, no like they do not have children umm like]
7. Jasmine: ¿*Él quiere niños o no quiere niños*?

[He wants children, or he does not want children?]

8. Brason: *Ella quiere niños muy rápido y pienso que es necesita decir como quiero vivir con tu y todo, pero no es necesario hacerlo*
[She wants children very fast and I think that he needs to, it is necessary to say like I want to live with you and everything, but it is not necessary to do it]

9. Jasmine: *Tan pronto*
[As soon]

10. Brason: Sí
[Yes]

11. Jasmine: ¿So, *recomiendo que hable* or *hablar? hable recomiendo que hable con* (writing) *y le dice que él quiere esperar? Y le dices que* (writing) [So, I recommend that you speak or to speak? Speak, I recommend that you talk to (writing) and tell her that he wants to wait? And you tell him (writing)]

12. Brason: Okay *sugiero que ustedes hagan planes para su futuro*
[I suggest that you make plans for your future]

In summary, these pairs represented an asymmetrical pattern of interaction where the ideas of only the dominant participants (Juan and Brason) were taken into consideration. In both pairs, the dominant participants showed control of task and they exhibited minimal engagement with their partner's contributions. This was evident because the final version of their compositions only expressed the language and the story that the dominant participants formulated during the interaction. Such behavior underscores the lack of a collaborative pattern of interaction.

Expert/Novice Pattern

As mentioned previously, two out of the twelve pairs of participants displayed an expert/novice pattern of interaction: Jasmin and Brason (Pair 7) on task one, and Julia

and Margarita (Pair 11) on task three. As seen in Excerpts (13) and (15) above, the learners who assumed the role of the expert (Jasmin and Margarita) tried to involve the novice in the interaction without imposing their ideas. They provided explanations and encouraged the novice to contribute to the interaction. For example, in Excerpt (24), which comes from the interaction between Margarita and Julia during task three, Julia suggested a synonym for the expression '*sentido de lealtad*' (turns 1, 2). However, the expression that Julia suggested was not pronounced correctly and her utterance sounded like the name Fidel. In turn 3, Margarita assisted her partner not only by providing the correct pronunciation of the word '*fiel*', but also by explaining that Julia's initial utterance sounded like the name Fidel, which Margarita associated with the famous Cuban Communist Fidel Castro (turn 3, 4).

(24) 1. Margarita: Umm *él tiene un gran sentido de lealtad*
[he has a great sense of loyalty]
2. Julia: ¿Umm *él sea fidel*?
[he is fidel?]
3. Margarita: *Fiel. Fidel es un comunista*
[faithful, Fidel is a communist]
4. Julia: (Laughs)
5. Margarita: *A él no le gusta dar mucho*
[He does not like to give much]

The next Excerpt (25) is a different part of the interaction described above (Excerpt 13) between Brason and Jasmin. This interaction illustrates another example of the expert/novice pattern of interaction. Jasmin (HL learner) interrupted her partner Brason (L2 learner) because she realized that the character who they were writing about did not have a name yet (turn 2). She reminded her partner, using English and Spanish,

that they needed to name them. However, unlike in the dominant/passive pattern of interaction, in turn 4, Jasmin seemed to comprehend that she interrupted her partner's contribution and apologized for this. She then invited the novice learner to continue with his contribution by asking him to repeat what he was stating at the beginning. In turn 7, Brason responded to his partner's suggestion and he provided a name for one of the characters. In the end, Jasmin accepted Brason's contributions, which were included in the final version of the composition.

(25) 1. Brason: *Sucedió con su papá* (writing)
[It happened with his dad]

2. Jasmin: *Sucedió con su papá* (writing). We need names. Necesitamos nombres, why do I keep doing that? ¿*sabes el nombre de él*?
[It happened with his dad…we need names… do you know his name?]

3. Brason: ¿*Quién*?
[who?]

4. Jasmin: Oh never mind, yeah, I'm sorry. ¿*Qué sucedió con su papá*?
[What happened to her dad?]

5. Brason: Okay

6. Jasmin: *Y*
[And]

7. Brason: Frank, Franco

8. Jasmin: Franco

In summary, two out of the twelve pairs of participants represented an expert/novice pattern of interaction. The expert participants in such dyads took a

a leading role in the task by providing explanations and encouraging the other learner to contribute. Thus, the interactions described above showed moderate to low equality but moderate to high mutuality.

Summary and Discussion

The analysis of dyadic interactions among 12 mixed and matched dyads of HL and L2 learners (four HL-HL, four HL-L2, and four L2-L2 dyads) showed that participants displayed three distinct patterns of pair interaction: collaborative, dominant/passive, and expert/novice. The collaborative pattern of interaction predominated in the data. Of the 12 pairs, nine displayed this pattern across the four writing tasks. A variety of factors may have contributed to promote collaboration between participants when assigned to work on the four different tasks in pairs. For example, as mentioned previously, from the beginning of the semester, classroom activities involved communicative tasks to be completed both in pairs and in small groups. For some activities, learners selected their group members and other times, I selected the groups. Thus, all participants were used to and seemed comfortable working with different learners in the class. Furthermore, I tried to give explicit instructions before learners started to work on each task. I reminded students to create their narrations together and to discuss their ideas before writing them. Also, I circulated around the classroom during each task to make sure learners were working together and that they did not have questions about task requirements or instructions. Another factor that may have contributed to promote a collaborative pattern of interaction is that the four tasks required the production of a written text. As García Mayo and Azkarai (2016) have explained, learners may tend to work collaboratively when they are asked to submit a final written

text because they are aware that grammatical accuracy will be reviewed carefully (p. 256). Furthermore, data showed that for these nine pairs, the collaborative pattern they established on task one, remained stable across the three other tasks. From a pedagogic perspective, this finding is significant as previous studies (e.g. Ohta, 2000; Rouhshad & Storch, 2016; Storch & Aldosari, 2013; Stroch, 2002) have shown that certain patterns of interaction, such as collaborative or expert/novice, are the most conducive to learning. When learners display these particular patterns of interaction, they tend to provide scaffolded assistance to each other and co-construct knowledge about language, which members of the dyad can eventually internalize (Storch, 2002, p. 148).

Moreover, based on previous research (Walls, 2018; Young & Tedick, 2016), I expected that most of the mixed pairs (HL-L2) would form asymmetrical relationships such as expert/novice or dominant/passive. However, my data indicated that only one mixed pair (Jasmin and Brason) displayed these asymmetrical patterns of interaction. Moreover, the analysis of the dyadic interaction of this pair showed that the HL learner did not always assume the expert or dominant role. In fact, it was the L2 student who took a dominant role during the completion of two tasks. This finding shows that patterns of interaction are dynamic and could be influenced by other factors such as learner's identity, motivation or goals. These types of factors are beyond the scope of the present study.

On the other hand, the case of Juan and Carolina showed that student proficiency and background may not always have an impact on the formation of patterns of interaction. I expected that Juan and Carolina would represent a collaborative pattern of interaction because both students were HL learners and their Spanish speaking

proficiency was similar. Other studies have shown that participants with similar backgrounds and proficiency levels tend to work collaboratively as they often assist each other and take turns assuming the role of expert (e.g., Storch, 2002; Walls, 2018). However, the analysis of Juan's and Carolina's interactions showed that these participants exhibited a dominant/passive pattern of interaction, where the dominant learner imposed his ideas while the passive learner did not contribute much to the task. Also, this pair mostly used English during their interactions rather than their heritage language. However, unlike pairs that exhibited a collaborative pattern of interaction, Juan and Carolina did not use English as a tool to mediate the construction of collective scaffolding and the cognitive processes that are used to solve their linguistic issues.

Surprisingly, in my observation notes, I wrote that Juan and Carolina seemed to enjoy working on the tasks together as they often laughed and seemed engaged with each other's contributions. Also, at the end of each task, the pair usually volunteered to share their compositions with the class, which, from my point of view, indicated that they felt satisfied with their final written product. Moreover, even though I noticed that Carolina was a slower writer and that she often copied from Juan's draft, I was not aware of the fact that this pair had developed a dominant/passive relationship until I analyzed the transcripts. This suggests that as teachers, it is not enough to monitor dyadic interaction during task completion. Promoting a consistent collaborative pattern of interaction also requires tailoring activities based on the characteristics of each dyad. For example, instructors can manage learners' time to complete tasks, designate each partner's role, and ask learners to include higher-level vocabulary (see Walls, 2018, p. 653).

Findings for Research Question Two

This section reports on the findings related to research question two: to what extent do dyads engage in LREs during peer task-based interaction? Results of the analysis are presented for the entire cohort of 12 dyads. Then, in order to illustrate the differences between pairs, I will select some specific dyads and provide a closer analysis.

Quantification of Oral Production

The results reported in Table 7 reveal that a total of 2,131 conversational turns during on-task talk across the four writing tasks were identified in the data. Of those, 622 were about *language related episodes* (LREs), 583 were about *task-related episodes* (TREs), and 926 were about *content related episodes* (CREs), forming 29.19%, 27.36%, and 43.45%, respectively, of the total number of turns in the data. The findings show that overall across the four tasks, learners engaged in more CREs than in LREs and TREs. This suggests that participants spent more time discussing the content of the task rather than how to approach it or the grammatical items included. Furthermore, these findings could indicate that most pairs did not have a great number of issues with task instructions and requirements, or negotiations about how to proceed, which suggests a shared understanding of the tasks. However, the total number of turns that pairs produced during each task (see Table 4 above) varied widely between dyads, even though all learners were given the same time (ten minutes) to complete each task. Furthermore, regardless of the pattern of interaction they displayed, each pair approached tasks in different ways. Table 7 shows that some pairs that represented the same pattern of interaction spent more time discussing TREs, while others spent more time discussing CREs or LREs.

Table 7. Number of LREs/ TREs/ CREs turns across the four writing tasks

Pair	Type of learner	Pattern of interaction	LRE	TRE	CRE	TOTAL
Angelo/Jenny	HL/HL	collab	34	150	43	227
Juan/Carolina	HL/HL	dom/pass	34	57	121	212
Carly/Blanca	HL/HL	collab	46	19	93	158
Jessica/Marco	HL/HL	collab	22	41	102	165
Gabriela/Lucas	HL/L2	collab	114	38	71	223
Isa/Driana	HL/L2	collab	55	89	42	186
Jasmin/Brason	HL/L2	exp/nov-pass/dom-collab	42	33	73	148
Silvia/Moira	HL/L2	collab	47	27	88	162
Maria/Bahia	L2/L2	collab	79	35	91	205
Maritza/Fatima	L2/L2	collab	98	26	72	196
Julia/Margarita	L2/L2	pass/dom-nov/exp-collab	29	34	87	150
Katy/Briana	L2/L2	collab	22	34	43	99
Total			622	583	926	2131
M			51.8	48.5	77.1	
R			22-114	19-150	42-121	

LRE – Language Related Episode, TRE – Task Related Episode, CRE – Content Related Episode

For example, Angelo/Jenny and Carly/Blanca were both HL-HL pairs categorized as collaborative. Data analysis showed that Angelo/Jenny produced more conversational turns across the four tasks than Carly/Blanca. Moreover, there were differences in distribution of LREs, TREs, and CREs. Angelo/Jenny produced 150 turns talking about TREs, while Carly/Blanca only produced 19 turns discussing the instructions of the task or how to approach it. Moreover, Carly/Blanca produced relatively more turns that focused on grammatical items and on task content than Angelo/Jenny. A closer analysis revealed that across the four tasks, Angelo and Jenny spent a great deal of time not only negotiating how to proceed or clarifying task instructions, but also expressing dissatisfaction with the task requirements as seen in Excerpts (26) and (27), which come from the interactions that occurred while students worked on task one and two. These extracts indicate that Jenny did not feel comfortable with the idea of producing the same written text with a partner (Excerpt (26) turn 2; Excerpt (27) turns 1, 3). Turn 2 (from Excerpt (26)) indicates that she felt it would be more appropriate to write a text independently so each student in the pair could express their individual ideas.

(26) 1. Angelo: *No sé qué más*
[I do not know what else]

2. Jenny: *Yo tampoco, cómo vamos a escribir lo mismo, no tenemos la misma mente*
[Neither do I, how are we going to write the same thing, we do not have the same mind]

3. Angelo: *¿Verdad? No sé*
[Right? I do not know]

(27) 1. Jenny: *Yo no entiendo por qué tenemos que escribir lo mismo*
[I do not understand why we have to write the same thing]
2. Angelo: *La misma cosa*
[The same thing]
3. Jenny: *Eso no tiene nada de sentido, pero no sé*
[That does not make any sense, but I do not know]
4. Angelo: Talking (explicit word) (laughing)
5. Jenny: Okay *está bien* (laughing)
[It's okay]
6. Angelo: ¿*Qué digo*?
[What do I say?]
7. Jenny: ¿*Qué es lo que tú quieres buscar*?
[What do you want to look for?]

In contrast, Carly and Blanca usually read instructions silently and they did not question the task requirements or asked each other for clarifications regarding instructions as much as other pairs. In Excerpt (28), after participants read instructions silently and individually for task two, they both seemed actively involved in trying to select a scenario from the options given. In turn 2, Blanca asks Carly to choose one scenario; however, because of the collaborative nature of their interaction, it seems that Carly did not want to impose her decision and in turn 5, she involved Blanca in the choice and waited for her confirmation (turn 6). As the extract demonstrates, they do not spend much time talking about task procedures, requirements, or their roles to complete it. The excerpt shows that after selecting the scenario, they immediately begin their text reconstruction by completing each other's contributions (turns 8, 9). Thus, they spent more time developing the content and discussing the language of the text than planning the procedures.

(28) 1. Carly: *Ay dios* (laughs)
[Oh God]
2. Blanca: ¿*Cuál quieres hacer*? (laughs)
[Which one do you want to do?]
3. Carly: *Pienso que la última, esta, la última*
[I think the last one, this one, the last one]
4. Blanca: *Sí, es muy triste* (laughs)
[Yes, it is very sad]
5. Carly: (Laughs). ¿*Quieres hacer la última*?
[Do you want to do the last one?]
6. Blanca: *Sí quiero la última*
[Yes, I want the last one]
7. Carly: Okay
8. Blanca: *Querido Loco de amor*
[Dear Loco de amor]
9. Carly: *Pensamos que tienes que comunicarte con tu novia y decirle que no estás umm ¿cómo se dice* ready*?*
[We think you have to communicate with your girlfriend and tell her you're not umm. How do you say ready?

Table 7 above also shows that there is no clear relationship between the pattern of dyadic interaction and participants' contributions. That is, participants' number of turns in some dyads displaying a collaborative pattern of interaction were similar compared to dyads displaying a dominant/passive or a more dynamic pattern of interaction. For example, although it has been shown that there were differences in distribution of LREs, TREs, and CREs between pairs, it is evident that for example, Juan/Carolina, identified as dominant/passive, and Gabriela/Lucas, identified as collaborative, produced a relatively similar number of conversational turns. Furthermore, analysis of data revealed

that although there was variation in the number of LREs produced across pairs, ranging from 22 to 114, there is evidence that all participants engaged in LREs during task-based interaction. This finding is important because previous studies have reported that LREs are beneficial to learning as they provide opportunities for corrective feedback, productive mutual support, and scaffolding among learners (Alegría de la Colina & García Mayo, 2006; Donato, 1994; Storch & Aldosari, 2010; Swain & Lapkin, 1998). Also, research has demonstrated that during LREs, learners not only produce speech that is intended for the interlocutor, but also for themselves, which indicates that during these discussions "learners are able to mediate each other's as well as their own learning through talk" (Lantolf, 2012, p.63).

Following García Mayo's & Azkarai's (2016) approach to data analysis, the incidence of LREs in this study was analyzed considering proportions of the total number of turns in each LRE to the total number of turns in each task. Findings showed that the incidence of LREs varied according to each task. Participants initiated significantly more LREs in writing task one than in the other three tasks. These findings are detailed in Tables 8, 9, 10, and 11 below. For example, for task one, which was about writing a creative story based on a picture of a famous painter, Table 8 shows that learners produced a total of 703 conversational turns (Column 3), in the course of which 59 LREs arose (Column 4). The LREs were discussed in 222 turns (Column 5). Therefore, LRE activity for task one represented 31.58% of participants' interaction. In contrast, Table 9 shows that task two, which required learners to write a letter giving advice to a person, generated the lowest number of LREs of all three tasks and the lowest number of turns in

LREs. Furthermore, Tables 10 and 11 show that task three and four generated relatively similar amounts of LREs and percents of LRE turns.

Table 8. LRE activity in relation to task 1

Pair	Type	Turns	Number of LREs	Turns in LREs	LRE turns (%)
Angelo/Jenny	HL/HL	43	2	7	16.28%
Juan/Carolina	HL/HL	73	2	4	5.48%
Carly/Blanca	HL/HL	80	7	22	27.50%
Jessica/Marco	HL/HL	57	1	2	3.51%
Gabriela/Lucas	HL/L2	54	10	34	62.96%
Isa/Driana	HL/L2	35	2	8	22.86%
Jasmin/Brason	HL/L2	86	8	28	32.56%
Silvia/Moira	HL/L2	50	3	16	32.00%
Maria/Bahia	L2/L2	74	14	57	77.03%
Maritza/Fatima	L2/L2	48	6	27	56.25%
Julia/Margarita	L2/L2	48	2	8	16.67%
Katy/Briana	L2/L2	55	2	9	16.36%
Total		703	59	222	31.58%

Table 9. LRE activity in relation to task 2

Pair	Type	Turns	Number of LREs	Turns in LREs	LRE turns (%)
Angelo/Jenny	HL/HL	37	2	4	10.81%
Juan/Carolina	HL/HL	83	5	19	22.89%
Carly/Blanca	HL/HL	21	1	2	9.52%
Jessica/Marco	HL/HL	16	1	2	12.50%
Gabriela/Lucas	HL/L2	73	6	23	31.51%
Isa/Driana	HL/L2	32	1	4	12.50%
Jasmin/Brason	HL/L2	12	1	1	8.33%
Silvia/Moira	HL/L2	37	1	3	8.11%
Maria/Bahia	L2/L2	64	1	3	4.69%
Maritza/Fatima	L2/L2	71	8	35	49.30%
Julia/Margarita	L2/L2	23	0	0	0.00%
Katy/Briana	L2/L2	19	1	8	42.11%
Total		488	28	104	21.31%

Table 10. LRE activity in relation to task 3

Pair	Type	Turns	Number of LREs	Turns in LREs	LRE turns (%)
Angelo/Jenny	HL/HL	92	4	19	20.65%
Juan/Carolina	HL/HL	11	2	6	54.55%
Carly/Blanca	HL/HL	27	3	12	44.44%
Jessica/Marco	HL/HL	53	3	12	22.64%
Gabriela/Lucas	HL/L2	55	6	27	49.09%
Isa/Driana	HL/L2	68	6	31	45.59%
Jasmin/Brason	HL/L2	24	2	9	37.50%
Silvia/Moira	HL/L2	36	1	7	19.44%
Maria/Bahia	L2/L2	35	3	11	31.43%
Maritza/Fatima	L2/L2	43	4	14	32.56%
Julia/Margarita	L2/L2	43	3	10	23.26%
Katy/Briana	L2/L2	16	2	5	31.25%
Total		503	39	163	32.41%

Table 11. LRE activity in relation to task 4

Pair	Type	Turns	Number of LREs	Turns in LREs	LRE turns (%)
Angelo/Jenny	HL/HL	55	1	4	7.27%
Juan/Carolina	HL/HL	45	1	5	11.11%
Carly/Blanca	HL/HL	30	4	10	33.33%
Jessica/Marco	HL/HL	39	2	6	15.38%
Gabriela/Lucas	HL/L2	41	6	30	73.17%
Isa/Driana	HL/L2	51	4	12	23.53%
Jasmin/Brason	HL/L2	26	2	4	15.38%
Silvia/Moira	HL/L2	39	6	21	53.85%
Maria/Bahia	L2/L2	32	2	8	25.00%
Maritza/Fatima	L2/L2	34	4	22	64.71%
Julia/Margarita	L2/L2	36	3	11	30.56%
Katy/Briana	L2/L2	9	0	0	0.00%
Total		437	35	133	30.43%

Tables 8, 9, 10, and 11 above also show that analysis of data did not reveal a connection between the type of pair and the number of LREs produced. For example, Table 8 shows that Angelo/Jenny an HL-HL pair, Isa/Driana an HL-L2, and Katy/Briana an L2-L2 pair, produced the same number of LREs during task one despite their differences in background and language proficiency. Moreover, Tables 8, 9, 10, and 11 show that there is not an evident relationship between the pattern of dyadic interaction and learners' production of LREs. For example, Gabriela/Lucas, identified as a collaborative pair, is one of the dyads that most LREs produced across the four tasks. In contrast, even though Katy and Briana also displayed a collaborative pattern of interaction, they produced the lowest number of LREs across the four tasks. This difference is related to the unequal number of total conversational turns that each pair produced across the four tasks, ranging from 99 to 227. Another notable result illustrated in Table 8 above was that when some pairs such as Gabriela/Lucas and Maria/Bahia produced a large number of LREs, their discussions regarding the LREs that arose also represented more than 60% of the interaction of these participants, while for five of the pairs these discussions represented less than 20% of their interaction.

Additionally, following Kos's (2017) methodology, in order to illustrate the distribution of assistance during learners' interactions, I examined to what extent individuals within each pair initiated and resolved LREs. I tallied all LREs that occurred during dyads' interactions according to which learner was the initiator and the supplier. Findings showed that overall, HL learners initiated a total of 82 LREs, whereas L2 learners initiated 79 LREs. However, the total number of LREs that individuals within groups initiated and resolved varied widely among dyads as seen in Table 12.

Table 12. Distribution of LRE initiation/LRE resolution within pairs across tasks

Pair Number	Name	Type of learner	Pattern	INIT	RES
Pair 1	Angelo	HL	collab	3	5
	Jenny	HL		6	2
Pair 2	Juan	HL	domin/pass	4	6
	Carolina	HL		6	4
Pair 3	Carly	HL	collab	5	8
	Blanca	HL		10	5
Pair 4	Jessica	HL	collab	3	3
	Marco	HL		4	2
Pair 5	Gabriela	HL	collab	19	7
	Lucas	L2		9	14
Pair 6	Isa	HL	collab	9	5
	Driana	L2		4	6
Pair 7	Jasmin	HL	exp/nov-pass/dom-collab	9	2
	Brason	L2		4	9
Pair 8	Silvia	HL	collab	4	4
	Moira	L2		7	3
Pair 9	Maria	L2	collab	13	10
	Bahia	L2		7	8

Pair 10	Maritza	L2	collab	10	9
	Fatima	L2		12	10
Pair 11	Julia	L2	pass/dom-	5	2
	Margarita	L2	nov/exp-collab	3	4
Pair 12	Katy	L2	collab	2	2
	Briana	L2		3	3

INIT -initiator, RES -resolution

Interestingly, some of these findings do not support previous research that has examined interactions between HL and L2 learners. In fact, in contrast to what previous studies have found (e.g., Bowles, Adams, & Toth; 2014; Henshaw, 2015), this study shows that in HL-L2 dyads, HL learners initiated more LREs than L2 learners and the L2 learners were more likely to resolve them. Furthermore, these findings confirm that during collaborative tasks, low proficiency learners in mixed dyads were able to engage in language-related collaboration and provided assistance to their partners. This supports Bowles' (2011a) statement that each individual in a dyad can contribute to the task according to his/her language strengths. Another important finding shown in Table 12, is that the distribution of initiation of and resolution to LREs varied within pairs regardless of the patterns of interaction they displayed. However, it is important to point out that the dominant partner in dyads that displayed an asymmetrical relationship (Juan/Carolina, Jasmin/Brason, and Julia/Margarita) tended to resolve more LREs than their partners.

Findings for Research Question Three

This section reports on the findings related to research question three: what are the characteristics of the LREs that appear? At the end of the report, I will provide a summary and discuss findings regarding research question two and three.

Linguistic Focus of LREs

The analysis of the nature of LREs showed that participants produced slightly more LREs focused on form (78 which is 48.45% of total LREs) than LREs focused on lexis (75 or 46.59% of total LREs). Out of the 78 LREs that had a grammar focus, 46 were focused on the target structure. An orthographic focus was present in seven LREs (4.34%), and only one LRE was categorized as phonological (0.62%). The LREs that learners focused on, on each of the four writing tasks are illustrated in Table 13.

Table 13. Nature of LREs in each task

	Tasks	Other struct.	Target struct.	Vocab	Pronun.	Orthog.	Mean
HL/HL Angelo/ Jenny	1 *La historia*	0	0	1	0	1	0.4
	2 *Sabelotodo*	0	0	2	0	0	0.4
	3 *Clasificado*	0	0	3	0	1	0.8
	4 *Organización*	0	0	1	0	0	0.2
HL/HL Juan/ Carolina	1 *La historia*	0	0	1	0	1	0.4
	2 *Sabelotodo*	0	1	1	0	3	1
	3 *Clasificado*	0	0	1	0	1	0.4
	4 *Organización*	0	0	1	0	0	0.2

HL/HL Carly/ Blanca	1 *La historia*	0	1	6	0	0	1.4
	2 *Sabelotodo*	0	0	1	0	0	0.2
	3 *Clasificado*	0	2	1	0	0	0.6
	4 *Organización*	1	0	3	0	0	0.8
HL/HL Jessica/ Marco	1 *La historia*	0	0	1	0	0	0.2
	2 *Sabelotodo*	0	0	1	0	0	0.2
	3 *Clasificado*	0	1	2	0	0	0.6
	4 *Organización*	1	0	1	0	0	0.4
HL/L2 Gabriela/ Lucas	1 *La historia*	2	4	4	0	0	2
	2 *Sabelotodo*	0	4	2	0	0	1.2
	3 *Clasificado*	1	4	1	0	0	1.2
	4 *Organización*	0	2	4	0	0	1.2
HL/L2 Isa/ Driana	1 *La historia*	1	1	0	0	0	0.4
	2 *Sabelotodo*	1	0	0	0	0	0.2
	3 *Clasificado*	2	2	2	0	0	1.2
	4 *Organización*	2	1	1	0	0	0.8
HL/L2 Jasmin/ Brason	1 *La historia*	5	2	1	0	0	1.6
	2 *Sabelotodo*	0	1	0	0	0	0.2
	3 *Clasificado*	0	1	1	0	0	0.4
	4 *Organización*	2	0	0	0	0	0.4
HL/L2 Silvia/ Moira	1 *La historia*	0	1	2	0	0	1.5
	2 *Sabelotodo*	0	0	1	0	0	0.2
	3 *Clasificado*	1	0	0	0	0	0.2

	4 *Organización*	0	5	1	0	0	1.2
L2/L2 Maria/ Bahia	1 *La historia*	3	1	9	1	0	2.8
	2 *Sabelotodo*	0	0	1	0	0	0.2
	3 *Clasificado*	2	0	1	0	0	0.6
	4 *Organización*	0	1	1	0	0	0.4
L2/L2 Maritza/ Fatima	1 *La historia*	3	1	2	0	0	1.2
	2 *Sabelotodo*	4	2	2	0	0	1.6
	3 *Clasificado*	0	1	3	0	0	0.8
	4 *Organización*	0	3	1	0	0	0.8
L2/L2 Julia/ Margarita	1 *La historia*	0	1	1	0	0	0.4
	2 *Sabelotodo*	0	0	0	0	0	0
	3 *Clasificado*	0	0	3	0	0	0.6
	4 *Organización*	1	0	2	0	0	0.6
L2/L2 Katy/ Briana	1 *La historia*	0	1	1	0	0	0.4
	2 *Sabelotodo*	0	1	0	0	0	0.2
	3 *Clasificado*	0	1	1	0	0	0.4
	4 *Organización*	0	0	0	0	0	0
Total		32	46	75	1	7	32.2

Regarding the outcome of LREs, there were more correctly resolved LREs across the four tasks (118 which is 73.29% of total LREs) than incorrectly resolved (15 or 9.32% of total LREs). However, out of the 161 LREs that learners produced, 28 (or 17.39%) remained unresolved. The LREs that I resolved when learners asked me for

assistance, along with the LREs that students resolved by using an online translator or dictionary, were categorized as unresolved. These findings are detailed in Table 14 below.

Table 14. Outcome of LRE's in each task

Tasks	Correctly	Unresolved	Incorrectly	Total
1 *La historia*	44	9	6	59
2 *Sabelotodo*	18	6	4	28
3 *Clasificado*	27	9	3	39
4 *Organización*	29	4	2	35

The analysis of the level of engagement in LREs reveals that, overall, the level of engagement was elaborate across all four tasks (85.71%). The level of engagement was limited in 21 LREs (13.05%) and limited-limited in only two LREs (1.24%). These findings are detailed in Table 15 below.

Table 15. Level of engagement in LREs in each task

Tasks	Elaborate	Limited	Limited-Limited	Total
1 *La historia*	53	6	0	59
2 *Sabelotodo*	19	7	2	28
3 *Clasificado*	34	5	0	39
4 *Organización*	32	3	0	35

Summary and Discussion

The second and third research questions concerned the extent to which learners engaged in LREs during peer task-based interaction and the characteristics of the LREs that appeared. To explore these questions, I used a qualitative and quantitative approach to data analysis. Results suggested that there was no clear relationship between patterns of interaction and the number of LREs produced. In other words, some pairs identified as collaborative tended to generate a similar number of LREs to which the pairs identified as dominant/passive produced. Moreover, results did not reveal a relationship between the number of total turns produced during tasks and the number of LREs that arose. For example, as shown in Table 7 above, Angelo and Jenny (a collaborative dyad) produced the largest number of conversational turns across the four tasks. However, they only produced 34 LREs. In contrast, Maritza and Fatima (a collaborative dyad) only produced a total of 196 conversational turns but they produced 98 LREs, almost three times more than the number of LREs that Angelo and Jenny produced. So even though Maritza and Fatima produced fewer overall turns, many more of them were related to "talking through" their use of language than were those of Angelo and Jenny.

A factor that may have contributed to this variation could be the way in which pairs approached tasks. Some pairs spent more time discussing LREs (e.g., Gabriela/Lucas), while other pairs focused on TREs (e.g., Angelo/Jenny) and CREs (e.g., Juan/Carolina). For example, as I illustrated earlier in Excerpts (26), (27), and (28), some pairs, such as Angelo and Jenny, spent more time than other pairs, such as Carly and Blanca, discussing task requirements and expressing their dissatisfaction. In contrast, other dyads, such as Carly and Blanca, usually proceeded to write the texts without

spending much time on planning. Moreover, data showed that even though some pairs produced the same number of LREs, some participants engaged in more extensive negotiations and discussions of these LREs than other participants. For example, Table 10 above shows that Carla/Blanca and Jessica/Marco produced the same number (three) of LREs. However, for Carla/Blanca LRE activity for this task represented 44.44% of participants' interaction, whereas for Jessica/Marco it only represented 22.64%.

Furthermore, with respect to initiation of LREs, broadly speaking, I found that regardless of the interactional pattern they displayed, HL learners initiated more LREs than L2 learners but L2 learners resolved more. Also, most of these LREs were resolved correctly. Out of the 161 total LREs produced, only 28 (17.39%) remained unresolved. Moreover, the analysis of level of engagement showed that, generally speaking, participant engagement was elaborate in most LREs. In other words, participants did not ignore the linguistic issues they encountered, and they usually attempted to discuss and resolve them. Moreover, during LREs, most pairs used English as a tool to mediate their learning and resolve linguistic issues. When confronted with situations in which neither learner could resolve an LRE, most dyads consulted the instructor before using other resources such as online translators. This suggests that overall, all participants co-constructed linguistic knowledge by focusing on the LREs that arose while engaging in the production of the texts. These results are in line with arguments from previous studies (Alegría de la Colina & García Mayo, 2006; Swain, 2006), which claim that collaborative work is beneficial to learning because they provide learners the opportunity to focus on form.

Moreover, data showed that the majority of LREs had a grammatical focus. Out of the 78 grammar-related LREs, 46 were focused on the target structure. These findings are consistent with previous studies (e.g. García Mayo & Askarai, 2016; Rouhshad & Storch, 2016; Storch, 2017), which have argued that when working on producing a written text, participants not only focus on the content but also on the form and the structure of the output they produce. However, there were also differences regarding the nature and number of LREs based on the type of task. As explained previously, task one, which was about writing a creative story based on a picture of a famous painter, generated a higher number of LREs than the other three tasks.

Overall, the analysis of LREs showed that during task-based interactions, all participants, regardless of proficiency level, background with the target language, and pattern of interaction, focused on linguistic issues, engaged in negotiations to discuss them, and often assisted each other. Most dyads worked collaboratively and provided scaffolding while writing the texts. Additionally, when trying to resolve LREs, they assisted each other but this assistance was usually supplied when needed ("contingent") through dialogic activity (Aljaafreh & Lantolf, 1994).

Findings for Research Question Four

This section reports on the findings related to research question four: do participants differ in terms of learning gains after peer task-based interaction? This question was addressed first, by describing the difference between pre-test and post-test scores for each participant. Then, I interpreted the difference between pre-test and delayed post-test scores for each individual. Findings are detailed in Table 16 below.

Table 16. Test results

Pair number	Type of learner	Name	Pre-test	Post-test	Delayed post-test
Pair 1	HL	Angelo	24	24	24
	HL	Jenny	24	24	24
Pair 2	HL	Juan	24	25	25
	HL	Carolina	22	20	22
Pair 3	HL	Carly	24	25	25
	HL	Blanca	16	20	23
Pair 4	HL	Jessica	24	23	24
	HL	Marco	22	19	21
Pair 5	HL	Gabriela	20	23	25
	L2	Lucas	22	21	24
Pair 6	HL	Isa	17	18	19
	L2	Driana	16	15	17
Pair 7	HL	Jasmin	4	16	18
	L2	Brason	25	25	25
Pair 8	HL	Silvia	24	24	24
	L2	Moira	23	25	24
Pair 9	L2	Maria	25	25	24
	L2	Bahia	23	25	24
Pair 10	L2	Maritza	21	24	25
	L2	Fatima	19	24	24
Pair 11	L2	Julia	23	22	24
	L2	Margarita	18	18	19
Pair 12	L2	Katy	21	22	22
	L2	Briana	20	23	21

To determine participant progress in relation to the use of the target structure, as a result of explicit instruction and task-based interaction, I compared the difference between pre-test and post-test scores. As mentioned in the methodology section, the post-test was administered five weeks after the pre-test; specifically, a week after participants completed the fourth writing task.

Results show that, for six learners, the difference in score between the pre-test and the post-test was at zero, which suggests that instruction and task-based interaction did not have an effect on participants' use of the target structure. Of these six students, two L2 learners (Maria and Brason) earned the highest possible score in both the pre-test and the post-test. Similarly, three HL learners (Angelo, Jenny, and Silvia) scored 24 points out of 25 in both the pre-test and the post-test. This finding indicates that these learners had prior knowledge of the target structure. Additionally, Margarita (L2 learner) did not have any change in her post-test either. However, we can assume that her prior knowledge of the target structure was weaker, given that her scores were lower than those of the five learners mentioned above.

Furthermore, it was found that three HL participants (Juan, Carly, and Isa) and one L2 learner (Katy) demonstrated a one-point gain score from pre-test to post-test. Two other L2 learners (Moira and Bahia) showed a two-point gain score from pre-test to post-test. On the other hand, five participants (Blanca (HL), Gabriela (HL), Maritza (L2), Fatima (L2), and Briana (L2)) scored three to five points higher on their post-test. Also, it should be noted that one HL learner's (Jasmin) score in the pre-test and post-test represented the highest gain among all participants, but her score in the pre-test was also the lowest in the class. This is in part because she did not answer 10 out of the 25

questions, which affected her results considerably. However, her results in the tests can also be attributed to her proficiency level. As noted in Chapter 4, Jasmin's scores on the DELE proficiency test were significantly lower than the other learners' scores. The mean score for most of the HL learners was in the "advanced" range, whereas the mean score for Jasmin, fell in the "low" range. It is not surprising then, that her post-test score improvement may be attributed to the interactions that she developed with the L2 learner, who was a more proficient learner. Additionally, one remarkable result that emerged from the data is that six learners (Carolina (HL), Jessica (HL), Marco (HL), Lucas (L2), Driana (L2), and Julia (L2)) scored lower on their post-test than they did on their pre-test.

To measure retained knowledge, a delayed post-test was administered six weeks after the post-test. Results indicated that for six learners, the difference between the pre-test and the delayed post-test scores was at zero. As noted earlier, this finding suggests that for these participants, instruction and task-based interaction did not greatly influence their use of the target structure on the tests. Additionally, it is important to underline that five of these six learners were HL learners (Angelo, Jenny, Carolina, Jessica, and Silvia). Their scores in the pre-test and delayed post-test ranged from 22 to 25. This suggests that these HL participants already had an advanced understanding of the use of the present subjunctive in nominal and adjectival clauses. This was also evident in the case of one L2 learner (Brason), who obtained the highest possible score on the three tests.

Also, it is significant to note that 16 participants scored higher on their delayed post-test than they did on their pre-test; the points they gained ranged from 1 to 14. Six of these 16 learners were HL learners, while the other 10 were L2 learners. This finding is significant because it suggests that instruction and task-based interaction had a positive

effect on a great number of participants. Contrarily, two learners (Marco (HL) and Maria (L2)) scored lower on their delayed post-test than they did on their pre-test. However, for these two participants, there was only a one-point difference from pre-test to post-test.

A closer analysis of test results indicated that many participants, including HL learners, had difficulties completing the third section of the tests, which involved adjective clauses. In this part of the tests, participants were asked to complete the sentences using the subjunctive or the indicative mood. The subjunctive was used in adjective clauses that modified an antecedent which was unknown within the speaker's realm of experience. On the other hand, if the antecedent was specific and known to exist, learners were supposed to use the indicative. Test results showed that some of the most challenging types of sentences to complete, for both types of learners, were the following:

Elegí un trabajo que… [I chose a job that…]
Busco al profesor Pablo Gonzales que… [I'm looking for Professor Pablo Gonzales, who…]
Tengo una pareja que… [I have a partner, who…]
Compré un computador que… [I bought a computer that…]

These clauses required the indicative because they indicated existence of the noun described by the adjective clause. However, many participants used the subjunctive instead. For example, some of the answers that participants provided were the following:

(28) Jenny's (HL learner) answer from post-test:
Elegí un trabajo que no sea mucha horas
[I chose a job that is not a lot of hours]

(29) Margarita's (L2 learner) answers from delayed post-test:
Busco al profesor Pablo Gonzales que tenga pelo rojo y una camisa azul
[I'm looking for Professor Pablo Gonzales who has red hair and a blue shirt]

Tengo una pareja que me enseñe realidades de la vida

[I have a partner that teaches me realities of life]

(30) Carolina's (HL learner) answer from post-test:

Compré un computador que funcione bien

[I bought a computer that works well]

These results confirm previous findings in the literature (e.g., Mikulski & Elola, 2013; Montrul, 2008; Silva-Corvalán, 1994, 2003), which have claimed that this linguistic feature is known to pose difficulties for HL and L2 learners. However, this study demonstrates how important peer interaction is for learners to co-construct linguistic knowledge that could be internalized and applied to subsequent activities (Donato, 1994). For example, the following Excerpt (31) is interesting because it shows that while working on task three, Isa, the HL learner, and Driana, the L2 learner, seemed to refer to an explanation given during instruction regarding the use of the subjunctive to express uncertainty and subjectivity. In turn 1, Driana states that she wants a boyfriend with specific qualities. In turn 2, Isa asks her partner for clarification about the use of the subjunctive. Driana answers by affirming that the subjunctive is not always necessary but that they should include it in their text. Then, in turn 5, Driana explains that she used the subjunctive because she is describing an ideal boyfriend with hypothetical characteristics.

(31) 1. Driana: *Umm quiero un novio alto*

[Umm I want a tall boyfriend]

2. Isa: *Ahh sí, pero pues* (inaudible), *de todos en ¿el* subjuntive? *¿subjuntivo o no?*

[Ahh yes, but then (inaudible), of all in the subjunctive? Subjunctive or not?]

3. Driana: *No necesita, pero debemos umm*

[It does not need to, but we should umm]

4. Isa: *¿Usar?*
[Use it?]

5. Driana: *Sí. Necesito un hombre que tenga un buen trabajo, porque es subjuntivo* (laughs)
[Yes. I need a man who has a good job, because he is subjunctive]

10. Isa: *Aha, sí*
[Aha, yes]

11. Driana: *Hombre, tenga* (writing)
[A man who has]

12. Isa: *Un buen trabajo o un trabajo ¿bueno?*
[A good job or a job, good?]

13. Driana: *Umm ella dijo bueno*
[umm she said good]

14. Isa: *Umm me gusta un hombre, umm, umm*
[Umm I like a man, umm, umm]

15. Driana: *Prefiero un hombre*
[I prefer a man]

16 Isa: *Prefiero, okay*
[Prefer, okay]

17. Driana: *Un hombre que habla, hable muchas lenguas*
[A man who speaks, speaks many languages]

18. Isa: *SÍ Í Í Í y en subjuntivo*
[YES, and in subjunctive]

Similarly, data showed that even though some HL learners had more background knowledge than L2 learners about specific grammatical structures, HL participants in the study also engaged in negations about how to formulate the target structures. For example, in the following Excerpt (32), Gabriela, the HL learner, seeks assistance from her L2 partner (turns 2, 4, 6) because she has difficulty choosing between the indicative

and the subjunctive. In this case, the L2 learner, Lucas, did not provide a correct resolution. However, test scores seem to suggest that both learners benefited from instruction and these language related discussions because they scored higher on their delayed post-test than they did on their pre-test.

(32)
1. Lucas: *Nuestro misión es que ayudar a los estudiantes con el poder de autodefensa*
   [Our mission is to help students with the power to self-defense]
2. Gabriela: *Sí, ayudar a los estudiantes que con el poder de* yeah, okay. Is it *ayudemos que, ayu, por ayudamos?*
   [Yes, help the students with the power of yeah, okay. Is it help that, ayu, for we help?]
3. Lucas: Umm
4. Gabriela : Or is that not even the right conjugation?
5. Lucas: Yeah I think that's indicative. To help the kids with power to self defense
6. Gabriela: *Ayudemos* or just *ayuda*?
   [we help or just help]
7. Lucas: Umm let's just say *ayudemos*

Summary and Discussion

Analysis of participant performance on post-tests measures with target structures, as a result of explicit instruction and task-based interaction, showed that individuals made different progress. Some participants did not show a change from pre-test to post-tests. For example, some HL learners, such as Angelo, Jenny, Juan, Carly, Jessica, Silvia, and L2 learners, such as Brason and Maria, were consistent with their high scores across the three tests. This finding indicates that these learners had prior knowledge about the target structure, and they did not have issues using it. From a pedagogical

perspective, this finding is significant because it suggests that, for these students, the content included in the tests was not challenging enough to pose difficulties. In other words, this content did not go beyond these six learners' current existing knowledge regarding the use of the subjunctive and indicative. This is also indicative of the nature of LREs produced during interaction. For example, some pairs such as Angelo/Jenny and Maria/Bahia obtained high scores in both the pre-test and the post-tests. While both pairs produced different types of LREs, the number of LREs associated with the target structure was minimal or inexistent, as observed in Table 13 above.

Nonetheless, test results also showed that of 24 participants, 16 scored higher on their delayed post-test than they did on their pre-test. This seems to indicate that instruction and task-based interaction did benefit most participants' production of the target structure. Although before the completion of tasks, the instructor provided the scaffold for learners, data showed that learners were also able to give feedback and scaffold each other at some point during the interaction. This was evident even in pairs that did not display collaborative patterns of interaction, such as Juan/Carolina and Jasmin/Brason. For example, the following Excerpt (33) took place during writing task three. As explained earlier, Jasmin and Brason adopted a passive/dominant pattern of interaction during this task; Jasmin was the passive learner and Brason the dominant partner. In turn 1, Jasmin contributes to the task by providing a sentence in which she uses the indicative mood to describe a hypothetical person. In turn 2, Brason corrects her and provides the correct form of the verb. However, Jasmin's phatic utterance, in turn 3, indicates that she did not understand her partner's correction. Brason immediately provides her with an explicit explanation by stating that the verb she used should be in

the subjunctive mood. However, due to the nature of their interaction, he did not scaffold Jasmin to help her understand why that was the best mood selection, but he did provide explicit corrective feedback, which may have contributed to Jasmin's improvement in scores from pre-test to post-tests.

(33) 1. Jasmin: *También y también queremos una persona que es responsable*
[Also and we also want a person who is responsible]
2. Brason: *Sea*
[Be]
3. Jasmin: Ah?
4. Brason: *Es subjuntivo, sea. Que pueda trabajar horas*
[It is subjuntive, be. Who can work hours]
5. Jasmin: *De más*
[Extra]
6. Brason: *Especificáis*
[Specific]
7. Jasmin: *Que puede trabajar horas específicas*
[Who can work specific hours]

Data also showed that while there were instances of non-target like resolutions, the interaction provided opportunities for learners to notice the difficulty of distinguishing the differences between the subjunctive and the indicative mood. This encouraged many participants to discuss these linguistic items explicitly and pool their resources to resolve the issues collectively. This "collective scaffolding" (Donato, 1994) may have enabled the 16 learners to improve their performance on the written post-tests. Therefore, these findings are in line with Donato's (1994) arguments, which suggest that learners can internalize and apply to subsequent activities, co-constructed knowledge.

Furthermore, it is also important to highlight that not all group and pair work is conducive to learning. Data show that some participants such as Marco, Maria, and Julia scored lower on one of their post-tests than they did on their pre-test. However, there is no clear evidence to argue that this had to do with the patterns of interaction they established. As discussed earlier, most of these learners developed collaborative relationships with their partners. On the other hand, the number of target structure LREs, that some pairs produced, may have influenced test scores. For example, Table 13 above shows that Marco, Maria, Julia and their respective partners, produced minimal discussions about the use of the subjunctive versus the indicative. Their LREs under this category ranged from one to two, and as seen in Excerpt (33) above, some of these LREs were not resolved correctly. Thus, these incorrect resolutions may have affected learners' performance on post-tests.

On the contrary, other dyads such as Gabriela/Lucas and Maritza/Fatima produced a relatively higher number of target structure LREs, between 7 and 14. These two pairs also scored higher on their post-test than on their pre-test. Thus, they had more discussions about the differences between the subjunctive and indicative mood, which may have triggered more opportunities for participants to use their available resources to co-construct knowledge beyond their current level.

Overall, it was found that all learners used the target items during task-based interaction. However, not all of them engaged in negotiations and collective decision making regarding the use of the subjunctive and the indicative. Furthermore, some of the dyads, who spent more time discussing this particular linguistic issue (e.g., Gabriela/Lucas (Hl/L2), Maritza/Fatima (L2/L2)), performed better on their post-tests

than on their pre-test. These findings are consistent with previous studies (e.g. Bowles, 2011a; Blake & Zyzik, 2003) that have found that HL-L2 learner dyads engaged in similar types of negotiations as L2–L2 learner dyads, which at the end benefited both types of participants.

CHAPTER 7

CONCLUSIONS AND IMPLICATIONS

This chapter reviews the four research questions which guided the investigation in this study, provides a summary of the major findings, and discusses pedagogical implications. Finally, it considers the study's limitations and directions for future research.

Overview of the Study and Main Findings

This study examined HL-HL, HL-L2, and L2-L2 learner dyadic interaction during four collaborative writing activities, which formed part of the regular class work. Research was conducted in two intact intermediate Spanish classes, where HL and L2 learners of different linguistic backgrounds were enrolled. A variety of research tools and resources were used to collect data. These included a language background questionnaire, a proficiency test, audio-recorded pair talk as the participants completed tasks, the completed written pair tasks, observation notes, a pre-test, and two post-tests. The main source of information came from the pair-talk. I used a predominately qualitative approach to data analysis, but I also included descriptive quantitative elements. The main goal of the study was to investigate the nature of participants' task-based interactions, the LREs they produced, and their performance on post-test measures for target structures. The research questions that guided the research were the following:

1. What patterns of interaction can be found between each pair of learners?
2. To what extent do dyads engage in LREs during peer task-based interaction?
3. What are the characteristics of the LREs that appear?
4. Do participants differ in terms of learning gains after peer task-based interaction?

Drawing from a sociocultural framework, which assumes that cognitive development, including language development, arises as a result of social interaction (Vygotsky, 1978), the first question of this study considered the relational patterns that each dyad developed during task-based interaction, and the common traits that characterize these patterns. Previous studies that have investigated patterns of interaction among pairs (e.g., Choi & Iwashita, 2016; Kos, 2017; Rouhshad & Storch, 2016; Storch, 2001b, 2002) have focused almost exclusively on L2, and particularly, ESL learners. Even though there are a few studies that have examined the nature of Spanish HL-L2 learner interaction (e.g., Blake and Zyzik, 2003; Bowles, 2011a, 2011b; Bowles, Adams, & Toth, 2014; Henshaw, 2015; Walls, 2018), most of these studies (except for Walls, 2018), have not analyzed HL-HL learner interactions. Therefore, this investigation extends the body of research on the nature of pair interaction, by examining the patterns of interaction developed among Spanish HL-HL, HL-L2, and L2- L2 learner dyads enrolled in the same courses. Moreover, the findings of this study shed light on the learning opportunities that arise when mixed and matched dyads interact when completing writing tasks, and on the outcomes of those opportunities in terms of knowledge retention.

As explained in Chapter 5, I adopted Storch's (2001b, 2002) categories of patterns of dyadic interactions, which are identified based on the dimensions of equality or "the degree of control or authority over the task" and mutuality or "the level of engagement with each other's contribution" (Storch, 2002, p. 127). Results showed that three out of the four patterns of interaction that Storch (2001b) identified among adult ESL learners were also found in the current study, namely collaborative, dominant/passive, and

expert/novice. The dominant/dominant pattern (Storch, 2001b) was not a relational pattern that participants in the study developed. The most common pattern of interaction between all three types of pairs was collaborative, where there is a moderate to a high level of equality and mutuality. Of the 12 pairs, nine displayed this pattern across the four writing tasks. This is a significant finding because it suggests that learners' diverse proficiency and linguistic backgrounds did not play a decisive role in directing participants' contributions to pair work. In collaborative dyads, both participants share responsibility of task completion, negotiate task requirements, engage with each other's contributions, and work together to solve the linguistics issues that arise during interaction. Additionally, previous research (e.g., Storch, 2001b, 2002; Storch & Aldosari, 2013) has shown that this particular pattern of interaction, along with the expert/novice pattern, which was represented by two participant pairs, are conducive of learning. Collaborative dialogue facilitates mediation and scaffolded feedback, which help learners to move towards a more independent and self-regulated performance (Aljaafreh & Lantolf, 1994).

On the other hand, of the 12 dyads, for at least some tasks three pairs (Juan/Carolina (HL/HL), Jasmin/Brason (HL/L2), and Julia/Margarita (L2/L2)) displayed a dominant/passive pattern of interaction, where there is low equality and mutuality. In this type of interaction, the passive learner does not contribute much to the task or question the dominant's role or contributions, while the dominant participant usually takes control of the task and does not consider his/her partner's contribution. The case of Juan and Carolina—two HL learners— is interesting because they seemed to have established a good relationship, which was apparently evident because they often

laughed, made jokes while working together, and seemed excited to share their work with the rest of the class at the end of each task. However, the in-depth analysis of their interactions revealed that they developed an asymmetrical relational pattern throughout the four tasks. This was surprising because they both were HL learners with advanced oral proficiency skills in Spanish, who had worked together in many other group activities prior to the study. This finding suggests that patterns of interaction are not necessarily established solely based on students' similar language proficiency and backgrounds. Also, this finding underscores the need to develop more research that explores the many social factors that may affect language learning during group work beyond linguistic proficiency or background. Additionally, I found that other pairs, such as Jasmin/Brason (HL/L2) and Julia/Margarita (L2/L2) adopted more fluid patterns of interaction, including collaborative, expert/novice, and passive/dominant. This confirmed previous results (Walls, 2018) that have argued that mixed dyads often display asymmetrical relational patterns, as in Jasmin's and Brason's case. However, in this case, the HL learner assumed the passive role during the completion of two tasks. This finding supports the idea that teachers should avoid assigning group members based on learners' proficiency or on the assumption that the HL learner will always enact an expert role when working with L2 learners (Young & Tedick, 2016).

The second and the third research questions in the present study examined the extent to which learners engaged in LREs during peer task-based interaction and the characteristics of the LREs that appeared. These questions were significant in the study because they helped to determine if learners reflected on their language use during task-based interaction. They also provided information about the possible effect of LREs on

interlanguage development. Results showed that all participants in the study engaged in LREs during task-based interaction. This could have been given the fact that all tasks required the production of written output. As previous research (e.g., García Mayo & Azkarai, 2016; McDonough, Crawford, & De Vleeschauwer, 2016; Storch 2005, 2017) has shown, tasks that require collaborative writing output help students focus on language. Moreover, these studies claim that the discussions that emerge between group members, during the writing process, can lead to opportunities for scaffolding and immediate feedback. Additionally, as Polio (2012) explained, the written modality is not only helpful for drawing learners' attention to form, but also helps students produce more output in general (p. 329). Regarding the benefits of collaborative writing, Storch (2005) also declared that it encourages students to cooperate when generating ideas, which is valuable because it exposes learners to different points of view (p. 168). Therefore, it was evident that participants in the study were able to attend to both form and meaning during the writing process.

The analysis of the nature of LREs showed that overall, participants produced slightly more LREs focused on form than LREs focused on lexis. Learners also produced orthographic and phonological LREs, but they occurred less frequently than grammatical and lexical LREs. Even though these results differ from some previous studies (e.g., Bowles, Adams, & Toth, 2014; Leeser, 2004; Williams, 2001), they are consistent with other studies (e.g., Basterrechea & García Mayo, 2013; García Mayo & Azkarai, 2016; McDonough, Crawford, & De Vleeschauwer, 2016) that have claimed that the incidence and nature of LREs, produced during interaction, depend on factors such as task type and modality (writing vs. oral). Furthermore, results showed that whereas all pairs produced

morphosyntactic LREs, they were more frequent in HL-L2 dyads. Lexical LREs occurred more often in L2-L2 dyads, and orthographic LREs occurred only in HL-HL dyads. The difference in the occurrence of orthographic LREs may be because most L2 learners acquire their L2 through formal instruction in the classroom (Henshaw, 2015); thus, they are more familiar with certain things, such as accent placement, than HL learners.

It is also crucial to note that overall, learners focused more on LREs associated with the target structure than on other type of grammatical feature. However, there were differences between dyad types and the frequency of LREs that had to do with the target structure. LREs associated with the selection between the subjunctive and the indicative mood occurred more frequently in HL-L2 dyads and in L2-L2 dyads than in HL-HL dyads. This shows that in fact, both HL and L2 learners have difficulties with mood distinction (Mikulski & Elola, 2013; Montrul, 2008; Silva-Corvalán, 1994, 2003) and that both types of learners focused on this particular linguistic feature not only because it is a difficult grammatical aspect for both types of learners, but also, because learners were asked explicitly to discuss it during interaction.

LREs are also a demonstration of learners' involvement with each other's contributions. Storch (2002) argued that during interaction, "learners negotiate not only the topic but also their relationship" (p. 120). Data revealed that nine pairs developed a collaborative pattern of interaction across the four tasks, which means that there was high mutuality and equality. These pairs worked together in all aspects of the tasks, assisted each other, and negotiated differences until they reached resolutions that seemed acceptable to both learners. The success of this collaborative pattern is also evident in the relatively high number of LREs that were resolved correctly across the four tasks.

Additionally, the analysis of the level of engagement in LREs revealed that, overall, the level of engagement was elaborate across all four tasks. Even pairs that did not develop a collaborative pattern, such as Juan/Carolina and Jasmin/Brason, were able to engage in LREs. As shown in Excerpts (9) and (33) above, at some point during the interaction, these particular pairs engaged in LREs, which in most cases were not ignored but resolved correctly. These pairs displayed asymmetrical relational patterns and did not show much evidence of scaffolding. However, in most cases, they did provide explicit feedback, which may have contributed to some passive learners' (particularly Jasmin and Julia) improvement in scores from pre-test to post-tests.

LREs also showed that, despite the differences in linguistic backgrounds, learners in mixed pairs (HL-L2) provided assistance to one another. In other words, it was not always the HL learners who assisted the L2 learners. In fact, some second language learners often provided a great deal of assistance to HL learners, as in Gabriela's and Lucas's case. LRE data also revealed that some of the pairs, that did not produce a large number of discussions associated with the target structure, did not present changes on their post-tests' scores. This may indicate that for these learners, the tasks did not challenge or went beyond the current knowledge that students had about the differences between the subjunctive and indicative mood. For these learners, development may not have taken place because the task could have been too easy (Ohta, 2000, p. 52). Other learners, such as Gabriela and Fatima initiated a great number of target structure LREs and scored much higher on their post-tests than they did on their pre-test. These learners also tended to ask assistance from their partners in order to resolve their linguistic issues because they were above their current knowledge level. Moreover, LRE data also showed

that some tasks triggered more deliberations about language in general than other tasks. Participants initiated significantly more LREs in writing task one than in the other three tasks. This may be due to the fact that, this first task, incorporated more explicit instructions about the information learners had to think about before writing the story and specific instructions about the number of instances of the target structures they had to include.

Furthermore, the analysis of LREs also revealed that even though the majority of LREs were resolved correctly, 9.32% of total LREs were resolved incorrectly and 17.39% remained unresolved. These findings have significant pedagogical implications in terms of the additional teacher's assistance that learners require. In other words, while the present study provides ample evidence that learner interaction can provide a facilitative context for L2 learning, it is inconclusive on the issue of the role of teacher. The number of unresolved or incorrectly resolved LREs suggests that it is important that instructors offer, either in an implicit or explicit manner, feedback after learners complete their written products, particularly when learners are dealing with complex grammatical structures. In this way, students can move competently towards more independent and self-regulated performance (Aljaafreh & Lantolf, 1994). As Young and Tedick (2016) pointed out, instructors should not assume that more proficient learners will always assist their lower proficient partners in a manner that an instructor does. Therefore, after pair interaction, it is significant to check learner's work and provide additional support regarding resolution of LREs, particularly those associated with the target structures.

The fourth research question analyzed participants' performance on post-test measures with target structures. Results showed that some participants, including HL and

L2 learners, obtained high scores in all tests and did not show a score change from pre-test to post-tests. Most of these participants were identified as HL learners. This suggests that they already had an advanced understanding of the difference between the subjunctive and the indicative mood prior to instruction and task-based interaction. However, data also showed that 16 participants scored higher on their delayed post-test than they did on their pre-test. This finding revealed that instruction and task-based interaction had a positive effect on a great number of participants, including HL learners. Moreover, there were only two learners (HL and L2) who scored lower on their post-test than they did on their pre-test. However, for these two participants, there was only a one-point difference from pre-test to post-test. Overall, results indicate that, in fact, many participants discussed the target structure explicitly during interaction, which may have enabled the 16 learners to improve their performance on the written post-tests.

Pedagogical Implications

The findings of this this study support Swain's output hypothesis (1995, 2005), as they suggest a possible relationship between collaborative dialogue and language learning. Data showed that during task-based interaction, participants noticed the gaps between what they knew and what they were trying to produce, tested hypotheses, experimented with different language forms, and most importantly, reflected on language produced by their partners or the self. This is significant because this reflection helps to mediate second language learning (Swain, 2005).

Moreover, one of the conclusions that can be drawn from the results in this study is that teachers need to develop a deeper understanding of the factors that may affect collaboration during small group work. For example, in terms of the grouping of students,

the present study confirms previous results (Choi & Iwashita, 2016; Young & Tedick, 2016) that have shown that learners can assume fluid patterns of interaction, which are not solely based on their linguistic background. Therefore, instructors need to be proactive and guide students to cooperate with each other while working in small groups. To achieve this, it is necessary that instructors express explicitly the advantages of not only valuing, but also challenging partners' contributions so they can create opportunities for learning. Another factor that may affect collaboration during pair work is task design. Data showed that some tasks promoted more LREs than other tasks. Therefore, it is important that instructors take the time to carefully design activities that push learners to higher levels of performance. Previous studies have claimed that tailoring tasks is particularly important in foreign language classrooms that enroll HL and L2 learners, as each type of learner has diverse language abilities and needs (Bowles, 2011a; Henshaw, 2015; Walls, 2018). For example, it was mentioned earlier that it may be helpful for the instructor to ask each learner in the dyad to first share his/her ideas orally with his/her partner before writing them. Also, each learner should write so they can both focus on on form and meaning during the process of co-construction. For mixed or matched dyads, instructors might also give each student a different set of instructions for the editing part. For example, one learner could check for grammar and orthography errors, while the other learner could make sure the content adheres to task requirements. Moreover, for dyads where both learners are at an advanced and intermediate proficiency level, as some of the HL-HL dyads in the present study, it is appropriate to ask learners to create longer and more complex texts that incorporate "varied sentence structures, dialogue and/or reported speech, and higher-level vocabulary" (Walls, 2018, p. 653).

In line with previous studies, results also indicate that collaborative text construction encouraged students not only to generate different types of LREs, but also to engage, in an elaborate manner, with discussions about these language related issues. This is important for language teachers because it shows that including a writing component in communicative tasks provided learners with more opportunities to mutually focus on the target language and especially on a target structure. However, it is also imperative to highlight that a small proportion of LREs were left unresolved or were resolved incorrectly. Therefore, instructor intervention, after or during group work, is also important because it gives more opportunities for learners to clarify linguistic issues that were beyond their knowledge.

Furthermore, test scores are a valuable resource to have because they allow instructors to determine the impact of instruction and task-based interaction on learning outcomes. Even though the reports described in the study were qualitative in nature and they lacked inferential statistical analyses, they helped to provide a clearer picture of participants' current existing knowledge about the subjunctive and the indicative mood, and their subsequent progress. Moreover, transcript data revealed that all participants included the target structures in their written products. This suggests that the efforts I made to provide clear instructions seem to have contributed to encouraging participants to focus on morphosyntactic issues during their language discussions. It was also evident that many groups used the target language to a great extent. However, at some point during the interaction, some pairs and particularly HL-L2 and L2-L2, used English as scaffolding to mediate their cognitive processes. This was evident in most pairs except for Juan and Carolina (HL-HL), who, even though they both had a high level

of Spanish oral proficiency, preferred to communicate in English. This may have been a consequence of their asymmetrical relational pattern of interaction. However, this statement needs to be interpreted with caution because other socio-affective factors, which were not discussed in the present study, may have affected this pair's interactional patterns. It would have been interesting to have matched Juan and Carolina with a different learner, from the same linguistic background, and then with an L2 learner, to observe if they developed the same patterns of interactions.

Limitations and Directions for Future Research

Although this study contributes to previous research on peer interactions of HL and L2 learners, some limitations need to be considered. First, an important issue in this study is the small sample size. The results could be useful pedagogically, particularly in regard to the considerations needed to organize the preparation of instructional materials for second and foreign language classes. However, the findings cannot be understood as a representative sample of the larger population of intermediate HL and L2 learners or as applying to more or less advanced courses than the ones the participants were enrolled in. Furthermore, as explained in Chapter 4, the HL participants had different levels of background knowledge and family exposure to the language. For the purpose of the present study, such differences were not considered. However, future studies should take students' background knowledge into account to further analyze how they may influence individuals' task or test performance. As discussed earlier, some HL learners in this study such as Angelo, Jenny, and Silvia scored 24 points out of 25, in both the pre-test and the post-test. This finding indicates that these learners did not make gains because they had prior knowledge of the target structure.

Moreover, the present study only involved heritage language learners of Spanish. Future research on classroom interactions involving mixed HL and L2 learner dyads, and other groupings, needs to include learners of other heritage languages being taught in the U.S; such studies will also need to be conducted with a larger population of students. Consequently, this research is intended to be suggestive of factors that influence small group interactions among HL and L2 learners and is not definitive.

Furthermore, I was the researcher and the instructor of the classes, which may have influenced students' participation during task-based interaction. Even though, before collecting data, I explained to students that their participation in the study was completely voluntary and that it would in no manner affect their grade in the course, they might have felt compelled to participate. Additionally, another factor that may have affected peer interaction was the fact that I circulated around the classroom during task completion and I often assisted groups when they asked me explicitly to do so.

The field of HL and L2 education would also be enriched by studies that include data sets in which classmates choose to work together, rather than only data sets in which the instructor forms pairs/groups. In this way, a more ecologically valid classroom research methodology could be developed. Moreover, it would have been beneficial to interview learners after they completed the tasks. Attitudinal data can help researchers to obtain a better understanding of participants' perceptions and feelings during peer interaction. This data could also help to analyze possible connections between peer perception and learning outcomes. This is particularly important in classrooms that enroll learners of different proficiency levels, cultural, and linguistic backgrounds.

Another limitation of the present study is that it touched briefly upon the linguistic differences among HL and L2 students, focusing mainly on aspects of morphosyntax and vocabulary, but other linguistic areas such as pragmatics and phonology were not considered. Additionally, the present study focused on analyzing data produced during writing tasks. To gain a better understanding of the impact that task modality has on the occurrence of LREs during task-based interaction, it is necessary to examine data produced during oral tasks.

Finally, another limitation of this study is the lack of analysis on aspects such as the role of the instructor during dyads' interaction, and the impact of social factors on student collaboration. As mentioned earlier, future studies should complement the data by providing attitudinal questionnaires after task completion.

In conclusion, this study contributes to the field of Spanish heritage language and L2 education by analyzing whether interaction, particularly learner-learner interaction in classrooms that enroll heritage and L2 leaners, facilitates opportunities for language development. The findings of the study revealed that having a combination of HL and L2 learners in the same classroom might have more benefits than drawbacks. My data showed that nine out of twelve pairs displayed a collaborative pattern of interaction across the four writing tasks. Also, all dyads produced LREs during task-based interaction and even learners that displayed a dominant/passive relationship during pair work assisted each other during those linguistic issues. Moreover, test results showed that of 24 participants, 16 scored higher on their delayed post-test than they did on their pre-test. This seems to indicate that instruction and task-based interaction did benefit most participants' production of the target structure. These results highlight the benefits of pair

interaction in mixed classrooms. However, they also point to the importance of modifying tasks taking into account learners' different levels of background knowledge. This would ensure that classrooms tasks will challenge or go beyond learners' current knowledge level and that each participant will contribute to the creation of the texts using their different linguistic abilities.

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APPENDIX A

PERMISSION TO TAKE PART IN A HUMAN RESEARCH STUDY

Title of research: Pair interaction in Spanish language classrooms that enroll heritage and L2 learners. Protocol # TEMP- 23940

Investigator and Department: Yohana Gil Berrio, Department of Spanish and Portuguese, College of Liberal Arts at Temple University

Why am I being invited to take part in this research?

We invite you to take part in a research study because you are either a Spanish heritage or a Spanish second language learner enrolled in a Spanish language class.

What should I know about this research?

Someone will explain this research to you.
Whether or not you take part is up to you.
You can choose not to take part.
You can agree to take part and later change your mind.
Your decision will not be held against you.
You can ask all the questions you want before you decide.

Who can I talk to about this research?

If you have questions, concerns, or complaints, or think the research has hurt you, contact the research team by calling Yohana Gil Berrio at (215) 421-2150 or by emailing yohana.gilberrio@temple.edu

Address: 1114 W. Berks St. 415 Anderson Hall, Philadelphia, PA 19122

This research has been reviewed and approved by an Institutional Review Board. You may talk to them at (215) 707-3390 or e-mail them at: irb@temple.edu for any of the following:

Your questions, concerns, or complaints are not being answered by the research team.
You cannot reach the research team.
You want to talk to someone besides the research team.
You have questions about your rights as a research subject.
You want to get information or provide input about this research.

Why is this research being done?

I am a student from the Department of Spanish and Portuguese at Temple University, and this study is part of a doctoral dissertation in Spanish applied linguistics.

A number of studies have indicated that conversational interactions among non-native speakers facilitate second language learning because they provide learners with opportunities to produce and modify the target language while trying to communicate with another speaker. However, a limited number of studies to date have been conducted to examine the nature of interactions among Spanish heritage language and second language learners enrolled in the same class. In an effort to address this gap, the present study seeks to analyze and compare the interactions of Spanish heritage and second language learners working in pairs during group work. The analysis of the interactions will consider whether pair interaction in such classroom contexts provide equal learning opportunities for all learners.

All tasks and instruction for the current study will be conducted as part of the regular course curricula. Thus, group and pair activities to practice the Spanish language as well as pre-tests and post-tests will be performed by all students in the class regardless of whether or not they take part in the research study.

How long will I be in this research?

We expect that you will be in this research for the duration of the semester which is 16-weeks.

What happens if I agree to be in this research?

Data will be collected during regular class meeting times and it will start in the first week of the term. The classes will meet three times a week on Mondays, Wednesdays, and Fridays for 50-minute class periods over a 16-week semester.

On the first day of class, all students in the classes will fill out the language background questionnaire which will serve to indicate your exposure to Spanish language since childhood. Then, during the first week of classes, all students in the class will also take a Spanish proficiency test. In week five, all students will take a pre-test of a particular Spanish grammatical point. Then, during week eight and nine, all students in the class will complete 8 brief speaking and written activities with a classmate in order to practice the grammar learned in previous lessons. Finally, all students in the class will complete two post-tests which will be very similar to the pre-test; these tests will focus on a particular Spanish grammar point learned and practiced during class activities.

All of the above procedures will be performed as part of the class activities regardless of whether or not you decide to take part in the research. These activities will be useful to practice the grammar learned during lessons and to help you prepare for homework and

classroom quizzes and tests. However, ***all activities being performed for this research will not impact your grade.***

What other choices do I have besides taking part in this research?

Instead of being in this research, your choices may include: to complete all individual and pair activities but your voice during interactions with your classmate won't be recorded and your tests scores and written work won't be included in the study.

Will being in this research help me in any way?

The data gathered in this research will be used to write academic papers that will provide a better understanding of the factors that may influence the effectiveness of peer interaction in Spanish classes that enroll both heritage and second language learners. The benefit you will obtain from the research is knowing that you have contributed immensely to the understanding of these topics.

What happens to the information collected for this research?

To the extent allowed by law, we limit the viewing of your personal information to people who have to review it. We cannot promise complete secrecy. The IRB, Temple University and other representatives of these organizations may inspect and copy your information.

□ **I give my consent to be video and audiotaped during this study**

Since data will be retained for future research, it will be stored in the graduate student-researcher's (Yohana Gil Berrio) personal computer and the research team will have access to it.

Signature Block for Capable Adult

Your signature documents your permission to take part in this research.

DO NOT SIGN THIS FORM AFTER THIS DATE →

Signature of subject	Date
Printed name of subject	Date
Signature of person obtaining consent	Date
Printed name of person obtaining consent	Date

APPENDIX B

DELE PROFICIENCY TEST

DELE Proficiency Test
Author: Dr. Silvina Montrul
Date: June 12, 2012
http://nhlrc.ucla.edu/data/proficiency-assessments-example-proficiency-exams.asp

Name:_____
Date: _____

Multiple Choice Test

Each of the following sentences contains a blank indicating that a word or phrase has been omitted. Select the choice that best completes the sentence.

1. Al oír del accidente de su buen amigo, Paco se puso _____.

a. alegre b. fatigado c. hambriento d. desconsolado

2. No puedo comprarlo porque me_____.

a. falta b. dan c. presta d. regalan

3. Tuvo que guardar cama por estar _____.

a. enfermo b. vestido c. ocupado d. parado

4. Aquí está tu café, Juanito. No te quemes, que está muy _____.

a. dulce b. amargo c. agrio d. caliente

5. Al romper los anteojos, Juan se asustó porque no podía _____ sin ellos.

a. discurrir b. oír c. ver d. entender

6. ¡Pobrecita! Está resfriada y no puede _____.

a. salir de casa b. recibir cartas c. respirar con pena d. leer las noticias

7. Era una noche oscura sin _____.

a. estrellas b. camas c. lágrimas d. nubes

8. Cuando don Carlos salió de su casa, saludó a un amigo suyo: -Buenos días,___.

a. ¿Qué va? b. ¿Cómo es? c. ¿Quién es? d. ¿Qué tal?

9. ¡Qué ruido había con los gritos de los niños y el _____ de los perros!

a. olor b. sueño c. hambre d. ladrar

10. Para saber la hora, don Juan miró el _____.

a. calendario b. bolsillo c. estante d. despertador

11. Yo, que comprendo poco de mecánica, sé que el auto no puede funcionar sin _.

a. permiso b. comer c. aceite d. bocina

12. Nos dijo mamá que era hora de comer y por eso _____.

a. fuimos a nadar b. tomamos asiento c. comenzamos a fumar d. nos acostamos pronto

13. ¡Cuidado con ese cuchillo o vas a _____ el dedo!

a. cortarte b. torcerte c. comerte d. quemarte

14. Tuvo tanto miedo de caerse que se negó a _____ con nosotros.

a. almorzar b. charlar c. cantar d. patinar

15. Abrió la ventana y miró: en efecto, grandes lenguas de _____ salían llameando de las casas.

a. zorros b. serpientes c. cuero d. fuego

16. Compró ejemplares de todos los diarios pero en vano. No halló _____.

a. los diez centavos b. el periódico perdido c. la noticia que deseaba d. los ejemplos

17. Por varias semanas acudieron colegas del difunto profesor a _____ el dolor de la viuda.

a. aliviar b. dulcificar c. embromar d. estorbar

18. Sus amigos pudieron haberlo salvado pero lo dejaron _____.

a. ganar b. parecer c. perecer d. acabar

19. Al salir de la misa me sentía tan caritativo que no pude menos que _____ a un pobre mendigo que había allí sentado.

a. pegarle b. darle una limosna c. echar una mirada d. maldecir

20. Al lado de la Plaza de Armas había dos limosneros pidiendo _____.

a. pedazos b. paz c. monedas d. escopetas

21. Siempre maltratado por los niños, el perro no podía acostumbrarse a _____ de sus nuevos amos.

a. las caricias b. los engaños c. las locuras d. los golpes

22. ¿Dónde estará mi cartera? La dejé aquí mismo hace poco y parece que el necio de mi hermano ha vuelto a _____.

a. dejármela b. deshacérmela c. escondérmela d. acabármela

23. Permaneció un gran rato abstraído, los ojos clavados en el fogón y el pensamiento _____.

a. en el bolsillo b. en el fuego c. lleno de alboroto d. Dios sabe dónde

24. En vez de dirigir el tráfico estabas charlando, así que tú mismo _____ del choque.

a. sabes la gravedad b. eres testigo c. tuviste la culpa d. conociste a las víctimas

25. Posee esta tierra un clima tan propio para la agricultura como para _____.

a. la construcción de trampas b. el fomento de motines c. el costo de vida
d. la cría de reses

26. Aficionado leal de obras teatrales, Juan se entristeció al saber _____ del gran actor.

a. del fallecimiento b. del éxito c. de la buena suerte d. de la alabanza

27. Se reunieron a menudo para efectuar un tratado pero no pudieron _____.

a. desavenirse b. echarlo a un lado c. rechazarlo d. llevarlo a cabo

28. Se negaron a embarcarse porque tenían miedo de _____.

a. los peces b. los naufragios c. los faros d. las playas

29. La mujer no aprobó el cambió de domicilio pues no le gustaba _____.

a. el callejeo b. el puente c. esa estación d. aquel barrio

30. Era el único que tenía algo que comer pero se negó a _____.

a. hojearlo b. ponérselo c. conservarlo d. repartirlo

Cloze Test

In the following text, some of the words have been replaced by blanks numbered 1 through 20. First, read the complete text in order to understand it. Then reread it and choose the correct word to fill each blank from the answer sheet. Mark your answers by circling your choice on the answer sheet, not by filling in the blanks in the text.

El sueño de Joan Miró

Hoy se inaugura en Palma de Mallorca la Fundación y Joan Miró, en el mismo lugar en donde el artista vivió sus últimos treinta y cinco años. El sueño de Joan Miró se ha _____(1). Los fondos donados a la ciudad por el pintor y su esposa en 1981 permitieron que el sueño se__(2); más tarde, en 1986, el Ayuntamiento de Palma de

Mallorca decidió _____(3) al arquitecto Rafael Moneo un edificio que _____ _____(4) a la vez como sede de la entidad y como museo moderno. El proyecto ha tenido que _____(5) múltiples obstáculos de carácter administrativo. Miró, coincidiendo _____(6) los deseos de toda su familia, quiso que su obra no quedara expuesta en ampulosos panteones de arte o en ____(7) de coleccionistas acaudalados; por ello, en 1981, creó la fundación mallorquina. Y cuando estaba _____ _____(8) punto de morir, donó terrenos y edificios, así como las obras de arte que en ellos _____(9).

El edificio que ha construido Rafael Moneo se enmarca en _____(10) se denomina "Territorio Miró", espacio en el que se han _____(11) de situar los distintos edificios que constituyen la herencia del pintor.

El acceso a los mismos quedará _____ (12) para evitar el deterioro de las obras. Por otra parte, se _____(13), en los talleres de grabado y litografía, cursos ____(14) las distintas técnicas de estampación. Estos talleres también se cederán periódicamente a distintos artistas contemporáneos, _____(15) se busca que el "Territorio Miró" _____(16) un centro vivo de creación y difusión del arte a todos los niveles.

La entrada _____ (17) 500 pesetas y las previsiones dadas a conocer ayer aspiran
_____(18) que el centro acoja a unos 150.000 visitantes al año. Los responsables esperan que la institución funcione a _____(19) rendimiento a principios de la _____(20) semana, si bien el catálogo completo de las obras de la Fundación Pilar y Joan Miró no estará listo hasta dentro de dos años.

Name _____

Cloze Test Answer Sheet

1.	a. cumplido	b. completado	c. terminado
2.	a. inició	b. iniciara	c. iniciaba
3.	a. encargar	b. pedir	c. mandar
4.	a. hubiera servido	b. haya servido	c. sirviera
5.	a. superar	b. enfrentarse	c. acabar
6.	a. por	b. en	c. con
7.	a. voluntad	b. poder	c. favor
8.	a. al	b. en	c. a
9.	a. habría	b. había	c. hubo
10.	a. que	b. el que	c. lo que
11.	a. pretendido	b. tratado	c. intentado
12.	a. disminuido	b. escaso	c. restringido
13.	a. darán	b. enseñarán	c. dirán
14.	a. sobre	b. en	c. para
15.	a. ya	b. así	c. para
16.	a. será	b. sea	c. es
17.	a. costaba	b. cueste	c. costará
18.	a. a	b. de	c. para
19.	a. total	b. pleno	c. entero
20.	a. siguiente	b. próxima	c. pasada

Answer Key: Multiple Choice Test

1. d	11. c	21. a
2. a	12. b	22. c
3. a	13. a	23. d
4. d	14. d	24. c
5. c	15. d	25. d
6. a	16. c	26. a
7. a	17. a	27. d
8. d	18. c	28. b
9. d	19. b	29. d
10. d	20. c	30. d

Answer Key: Cloze Test

1. a	8. c	15. b
2. b	9. b	16. b
3. a	10. c	17. c
4. c	11. b	18. a
5. a	12. c	19. b
6. c	13. b	20. b
7. b	14. a	

Total points possible: 50

Advanced	40 to 50
Intermediate	30 to 49
Low	0 to 29

APPENDIX C

LANGUAGE BACKGROUND QUESTIONNAIRE

Title: *Bilingual background questionnaire for Spanish/English speakers*

Author: Silvina Montrul

Date: 2012

http://www.nhlrc.ucla.edu/data/questionnaires.asp

(This information will be kept confidential)

Participant: _____

Initials: _____ Age: _____

I. Personal Data

What is your highest level of education completed? (please circle):

some high school high school some college college graduate

Country of origin: _____

Country of current residence:_____

1. If you were not born in the U.S., during what ages did you live in your country of origin?

2. If you were not born in the U.S., how long have you lived in the U.S. for?

****

II. Family History

3. Where are your parents/caregivers from?

Mother: _____ Father: _____

4. What languages do your parents/caregivers speak?

Mother: _____ Father: _____

5. What do your parents do for a living?

Mother: _____ Father: _____

6. What is your parents' highest level of schooling? (circle one for each)

Mother	elementary school	Father:	elementary school
	Middle school		middle school
	High school		high school
	College		college
	Grad school		grad school

****

III. Your Linguistic History

7. At what age did you first begin to learn English?

8. At what age did you first begin to learn Spanish?

9. Did you begin to speak both English and Spanish before age 5? (circle one)

Yes No

10. What languages did you <u>hear</u> in your home between the ages of birth-5 years? (circle all those that apply)

Spanish English Mixed Other (specify) _____

11. What languages did your parents/caregivers use mostly when speaking to you?

Spanish English Mixed Both Other

12. What languages did you use mostly when speaking to your parents/caregivers?

Spanish English Mixed Both Other

13. Do you have siblings?

Yes No how many? Are they older or younger?

14. What language/s did you use when speaking with your siblings?

Spanish English Mixed Both Other

15. What language/s did your siblings use when speaking with you?

Spanish English Mixed Both Other

16. Did grandparents live at home?

Yes No

17. What language/s did your grandparents use when speaking to you?

Spanish English Mixed Both Other

18. What language/s did you use when speaking with your grandparents?

Spanish English Mixed Both Other

19. Where there other caregivers in the house (baby-sitter/ other family member)?

Yes No Who?

20. What language/s did your other caregiver use when speaking to you?

Spanish English Mixed Both Other

21. What language/s did you use when speaking to your other caregiver?

Spanish English Mixed Both Other

22. Did you attend daycare or were you cared at home before age 5?

Daycare home with _____

23. What language were you spoken to when in day care/home care?

Spanish English Mixed Both Other

24. What language/s did you use when speaking with your caregiver?

Spanish English Mixed Both Other

25. Did you play with other Spanish-speaking children?

Yes No

26. What languages did you use with other children/siblings?

Spanish English Mixed Both Other

27. Did you watch TV in Spanish?

Yes No

28. Did your parents encourage you to speak Spanish as much as possible in the house?

Yes No

29. Did your parents read stories in Spanish to you?

Yes No

30. Did your parents correct you when you spoke Spanish?

Yes No

****

IV. Elementary School

31. How often did you use Spanish between the ages 6-10?

always often seldom never

32. Who did you speak Spanish with?

mother/father siblings friends others

33. Did you attend elementary school in the US?

Yes No

34. Was English the primary language of instruction?

Yes No

35. Did you have Spanish as a foreign/second language in elementary school?

Yes No

36. How many hours a week of Spanish did you have in elementary school?

2 hours 5 hours 10 hours more than 10

37. Did you have Spanish-speaking friends at school?

Yes No

38. What language did you speak with your Spanish-speaking friends in elementary school?

Spanish English Mixed Both

V. Middle School

39. How often did you use Spanish between the ages 11-13?

always often seldom never

40. Who did you speak Spanish with?

mother/father siblings friends others

41. Did you attend middle school in the US?

Yes No

42. Was English the primary language of instruction?

Yes No

43. Did you have Spanish as a foreign/second language in middle school?

Yes No

44. How many hours a week of Spanish did you have in middle school?

2 hours 5 hours 10 hours more than 10 hours

45. Did you have Spanish-speaking friends in middle school?

Yes No

46. What language did you speak with your Spanish-speaking friends in middle school?

Spanish English Both

****

VI. High School

47. How often did you use Spanish between the ages 13-17?

always often seldom never

48. Who did you speak Spanish with?

mother/father siblings friends others

49. Did you attend high school in the US?

Yes No

50. Was English the language of instruction?

Yes No

51. Did you have Spanish as a foreign/second language in high school?

Yes No

52. How many hours a week of Spanish did you have in high school?

2 hours 5 hours 10 hours more than 10 hours

53. Did you have Spanish-speaking friends in high school?

Yes No

54. What language did you speak with your Spanish-speaking friends in high school?

Spanish English Mixed Both

55. Did you travel to a Spanish-speaking countries?

Where When How long How often

****

VII. Your linguistic proficiency now

56. Rate your current overall language ability in ENGLISH

1 = understand but cannot speak
2 = understand and can speak with great difficulty
3 = understand and speak but with some difficulty

4 = understand and speak comfortably, with little difficulty
5 = understand and speak fluently like a native speaker

57. Rate your current overall language ability in SPANISH

1 = understand but cannot speak
2 = understand and can speak with great difficulty
3 = understand and speak but with some difficulty
4 = understand and speak comfortably, with little difficulty
5 = understand and speak fluently like a native speaker

58. On a scale from 1 to 5, rate your abilities in English and in Spanish
(1 =poor; 2= needs work; 3=good; 4= very good; 5= native speaker command)

English	Reading =	Speaking=	Listening=	Writing=
Spanish	Reading =	Speaking=	Listening=	Writing=

59. In general, as a young adult, which language do you prefer to use? (circle one)

English Spanish It depends on whom I talk to Both

60. Do you feel Spanish is your native language or like a second language?

Native language second language

61. Would you like to improve your Spanish language skills?

Yes No Why?

62. What would you like to improve about your Spanish language ability?

63. How is Spanish important for you?

64. Do you think it is important to maintain and improve Spanish in your life?

65. How do you think you can use more Spanish in your future?

****

VIII. Notes:

_____
_____
_____
_____

APPENDIX D

PRE-TEST/POST-TEST

Nombre: _____

Fecha: _____

A. Haz recomendaciones para las siguientes situaciones. Usa verbos diferentes

1. Tengo 20 años. Estoy locamente enamorado de mi novio pero no quiero casarme y él sí.

Recomiendo que _____

_____.

2. Estoy nostálgico porque la persona que amo vive en otro país.

Recomiendo que _____

_____.

3. Este semestre estoy tomando 5 clases y trabajo 7 días a la semana todas las noches. Estoy muy estresado y no tengo tiempo para nada.

Recomiendo que _____

_____.

4. Estoy tomando una clase de francés y no entiendo nada cuando la profesora habla. No quiero sacar malas notas, pero para mí es muy difícil hacer las tareas y escribir las composiciones.

Recomiendo que _____

_____.

5. No tengo dinero y quiero comprarme muchas cosas.

Recomiendo que _____

_____.

B. Escribe/di la forma del verbo que crees correcta:

1. Ojalá que este ejercicio _____ (ser) fácil.
2. Dudo que el profesor _____ (ir) a la fiesta.
3. ¡Camila, te recomiendo que _____ (salir) con Rafael!
4. Es verdad que todos los profesores _____ (trabajar) mucho.
5. Creemos que los estudiantes _____ (venir) pronto.
6. Es verdad que Carlos _____ (estar) muy triste.
7. Te aconsejo que le _____ (decir) la verdad a tus padres.
8. Es importante que _____ (visitar) al médico.
9. Quiero que tú _____ (comer) con él.
10. Es mejor que _____ (escribir) todo el ensayo esta noche.

C. Termina las siguientes oraciones

1. Prefiero las clases que…
2. Elegí un trabajo que…
3. Busco al profesor Pablo Gonzales que…
4. Quiero amigos que…
5. Deseo un país donde…
6. Voy a viajar a un lugar donde…
7. Quiero vivir en un lugar donde…
8. Tengo a una pareja que…
9. Quiero una mascota que…
10. Compré un computador que…

APPENDIX E

WRITING TASK ONE

LAS HISTORIA DETRÁS DE UNA PINTURA

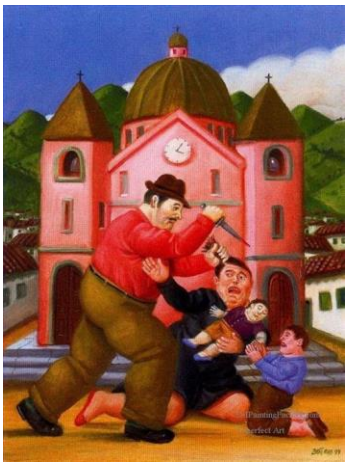
Con tu compañero, escoge una de las siguientes pinturas de los famosos pintores Fernando Botero y Héctor Poleo. Después de escoger una pintura, inventa una historia para describir lo que crees que pasa en la pintura. Responde a las siguientes preguntas antes de empezar a escribir la historia:

a. ¿Cómo son las personas?
b. ¿Quiénes son las personas?
c. ¿Dónde están?
d. ¿Cuál es el dilema?
e. ¿Cómo van a resolverlo los personajes?

Usa por lo menos 4 de las siguientes expresiones ya sea en la voz del narrador o en la voz de los personajes:

Es importante que	Es imposible que
Es necesario que	Aconsejar que
Decir que	Desear que
Esperar que	Insistir que
Pedir que	Preferir que
Querer que	Recomendar que
Sugerir que	Permitir que

Fernando Botero





Note. Pictures retreived from https://www.google.com/search?q=botero+paintings&biw=1366&bih=623&source=lnms&tbm=isch&sa=X&ved=0ahUKEwiN042NxdDNAhXEPCYKHewWAM0Q_AUIBigB#

Héctor Poleo

Note. Pictures retreived from

https://www.google.com/search?q=hector+poleo+artist&biw=1366&bih=623&tbm=isch&tbo=u&source=univ&sa=X&ved=0ahUKEwj1pZvVxdDNAhXKPiYKHQB_ABsQsAQIGw#imgrc=WxOdfeHZLrkIDM%3A

APPENDIX F

WRITING TASK TWO

SABELOTODO

Eres una persona muy sabia y muchas personas te buscan para que les des consejos sobre sus problemas personales. Escoge una de las situaciones a continuación y redacta una carta dando recomendaciones y sugerencias para esas personas. Puedes darles ejemplos sobre tus propias experiencias. Usa diferentes verbos en el subjuntivo.

a. *Querido Sabelotodo,*

Tengo un problema. Quiero aprender mucho español y estoy tomando clases con un maestro nativo, pero él habla demasiado rápido y no entiendo nada. Tampoco tengo tiempo para estudiar la gramática porque tengo dos trabajos. Mis notas en la clase son muy malas y mi profesor piensa que en realidad no me interesa la clase, pero no es verdad. ¡Quiero aprender! ¿Qué debo hacer? ¡Ayúdame por favor!

Un saludo,

Frustrado en clase

b. *Querido Sabelotodo,*

Tengo un problema grandísimo. Tengo 32 años y nunca he tenido un novio, ni siquiera un amigo muy cercano porque soy demasiado tímida. Siento que ya estoy lista para una relación, pero no sé cómo empezar a conocer chicos. No me gusta ir a bares ni a lugares públicos. Mis amigas me dicen que abra un perfil en una página de internet para conocer otras personas que también están buscando pareja. Sin embargo, me da mucho miedo conocer a personas a través del internet, he escuchado historias muy malas. No sé qué debo hacer, ¡Ayúdame por favor!

Un saludo,

Siempre soltera.

c. *Querido Sabelotodo,*

Tengo un problema gigante. Tengo 20 años y el semestre pasado viajé a España y conocí a una chica muy encantadora. Solo hablamos un día y eso fue suficiente para darme cuenta de que estaba totalmente enamorado. Aunque solo nos vimos personalmente un día, hablamos por teléfono casi todos los días y ella dice que me ama y que no quiere estar lejos de mí. El problema es que ella quiere que me mude a España y nos casemos inmediatamente y tengamos hijos. De verdad la amo, pero siento que todavía no estoy preparado para tener una familia. ¡Estoy muy confundido! ¿Qué debo hacer? ¡Ayúdame por favor!

Un saludo,

Loco de amor

APPENDIX G

WRITING TASK THREE

AVISOS CLASIFICADOS

Imagina que estás buscando a una persona específica para un trabajo, o como amigo(a), o como pareja. Vas a describir específicamente las cualidades de la persona que buscas para publicarlas como aviso clasificado en el periódico más leído de la ciudad. Recuerda usar cláusulas adjetivales.

APPENDIX H

WRITING TASK FOUR

NUESTRA ORGANIZACIÓN

Con tu compañero, piensa en una organización que te gustaría fundar en la universidad.

Paso 1: Piensen en un nombre para su organización y un objetivo o misión.

Paso 2: Escriban una descripción. Incluyan el nombre de la organización, la misión, lo que ya tienen y las personas y recursos que necesitan.

Modelo:

Nuestra organización se llama “Estudiantes Activos.” Tiene como misión (ayudar, luchar, trabajar, etc.).

Queremos tener miembros que…

Actualmente tenemos…

Nuestros líderes son personas que…

Necesitamos un miembro que…

Buscamos un lugar donde reunirnos que…