Learner-Learner Interaction: An Exploration of the Mediating Functions of Multilingual Learners’ Languages in an L3 Foreign Language Classroom

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LEARNER-LEARNER INTERACTION: AN EXPLORATION OF THE MEDIATING FUNCTIONS OF MULTILINGUAL LEARNERS’ LANGUAGES IN AN L3 FOREIGN LANGUAGE CLASSROOM

by

CAROLINE PAYANT

Under the Direction of YouJin Kim and Diane Belcher

ABSTRACT

Since the mid 90s, an increasing number of researchers have adopted a sociocultural theory (SCT) of mind to investigate the social and cognitive functions of language during learner-learner interaction (Lantolf & Thorne, 2007). Researchers from an SCT perspective have identified that first languages (L1s) serve important cognitive functions (Alegría de la Colina & García Mayo, 2009; Storch & Aldosari, 2010). Swain and colleagues (Swain, 1995; Swain & Lapkin, 1995, 1998) have also illustrated that languaging, a form of verbalization, facilitates the completion of complex linguistic tasks which leads to second language (L2) development (Swain, Brooks, & Tocalli-Beller, 2002). Moreover, researchers have found that task type impacts language development (Storch & Aldosari, 2010; Storch & Wigglesworth, 2003; Swain
Due to the growing number of multilingual learners in the world today (Hammarberg, 2010), researchers need to expand the scope of the research to include the role(s) of native and nonnative languages on third language (L3) development. Thus, the purpose of the current multiple case study was to investigate the specific mediating functions of multilingual learners’ languages during four types of collaborative tasks and to explore the relationship between languaging and L3 development. A 16-week classroom-based study was conducted in a university French as a foreign language classroom in Mexico with four focal participants. The language produced during learner-learner interaction was examined using three types of analysis: (1) each turn was coded for language and for their specific functions; (2) each Language-Related Episode (LRE) was coded for type and for resolution; and (3) accuracy on individual tailor-made posttest items. Findings uncovered a complex picture of task type effects on the specific mediating functions of language as well as complementary functions of L1 and L3 mediation. Results from the analysis of LREs show that task type impacts the occurrence and resolution of LREs. Accuracy scores from the posttests suggest that L1 and L3 mediation promotes L3 development. Findings are in line with the focal participants’ beliefs. The findings that languages serve various social and cognitive functions during task completion are discussed in light of current ideas from an SCT perspective.

INDEX WORDS: Third language acquisition, Sociocultural theory, Native and nonnative language mediation, Languaging, Language-related episodes, Collaborative tasks, Learner beliefs
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CAROLINE PAYANT

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To Monique, Louis, Isabelle, Benoit, David, and Jesús for their love and support.
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1 INTRODUCTION

1.1 Sociocultural theory and language mediation

A shared sentiment among many language teachers, teacher educators, and learners is that the use of the first language (L1) in second language (L2) classrooms should be minimal, if not avoided. Tracing the origins of this belief to the late nineteenth century, Cook (2001) maintains that currently many educators take the position that L1 use should be minimized and – in extreme cases – banned from the classroom. This claim is supported by the tenets of different approaches to language teaching, including the Direct Method and the Audiolingual Method. Yet, the limited or negative pedagogical value of L1 use in foreign language (FL) contexts may not be empirically grounded. Research within a sociocultural theory (SCT) framework provides increasing evidence that language functions as a symbolic tool that mediates our relationships with the world and facilitates the development of higher mental functions (Lantolf, 2006, 2000c; Swain & Lapkin, 2000).

The study of language development from an SCT perspective is based upon the work of Lev Vygotsky, a Russian psychologist, who viewed learning as a socially situated and informed activity. Vygotsky (1978, 1981) proposed the genetic law of cultural development to account for cognitive and linguistic development in children. The genetic law of development stipulates that internal mental functions such as memory and attention are preceded by an external stage that unfolds in the social realm. Thus, according to Vygotsky:

[a]ny function in the child’s cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category (1978, p. 57).
From this perspective, speaking is intrinsically connected to thinking such that higher mental functions are mediated by cultural and symbolic tools. Wertsch (1991), expanding on the work of Vygotsky, maintains that to study the development of higher forms of thinking in isolation or in a cultural, institutional, and historical vacuum has provided us with a fragmented understanding of human cognition and argues that “attempts to understand the nature of mental processes by analyzing only the static products of development will often be misleading” (p. 20).

The practice of studying fragmented pieces of a whole has been the dominant trend in the field of traditional second language acquisition (SLA). SLA researchers have examined the role of input, interaction, and output on language acquisition where negotiation of input has been the locus of study (Gass & Mackey, 2006a, 2007b; Long, 1981, 1983). While SLA research has focused on cognitive mechanisms underlying language acquisition processes, current views in SLA are starting to recognize the importance of examining the sociocultural contexts where language development occurs (Atkinson, 2011; Gass & Mackey, 2006b). These efforts can provide us with a more accurate representation of the interconnectedness of thinking and speaking that underlies human cognition. Despite these emerging directions and attempts to bridge the gaps between cognitive and social factors, the field of SLA continues to have a strong cognitive orientation.

Since the mid 90’s, Vygotskian ideas and concepts of cognitive development have been applied to the study of L2 development. Building on the idea that higher mental functions first appear on the social plane and are subsequently internalized, L2 researchers have begun to examine the social and cognitive functions that language serves during interaction in order to understand mental functioning and development in progress, that is, a process-oriented view of language development. This dialogic view of situated learning includes interaction with the self.
(e.g. private speech) and with our peers. In brief, the study of situated learning provides us with a holistic view of human cognition where language is a pervasive symbolic tool for learning.

Research has shown that L2 learners have at their disposal several symbolic tools: native language (L1), the L2, private speech, and gestures (Lantolf, 2005, 2011). With these tools, individuals form an indirect relationship, a mediated relationship, that allows the planning of mental and material activities. In language teaching pedagogy, a popular belief is that L1 use should be minimized (see e.g., Auerbach, 1993; Cook, 2001). However, from an SCT perspective, L1s can provide a useful, if not necessary, scaffold for language learners. Current literature reporting on the mediating functions of the L1 and the L2 during speaking and writing activities is revisiting traditional conceptualizations of L1 use in language classrooms. One line of work investigates the functions of L1 private speech, a form of externalized speech (Lantolf & Thorne, 2006). The study of L1 private speech provides a window into developing mental processes and empirical results suggest that language regulates mental activities (Appel & Lantolf, 1994; Brooks & Donato, 1994; DiCamilla & Antón, 2004; Frawley & Lantolf, 1985; McCafferty, 1994a, 1994b). A second area focuses on language produced during learner-learner interactions and during student-teacher interactions while participating in L2 pedagogical tasks. Tasks, in this context, are holistic activities that promote language development as a result of language production (Samuda & Bygate, 2008). During the completion of tasks, learners discuss task-related aspects, generate ideas, deliberate about grammar and vocabulary, and externalize feelings and frustrations through the L1 (Alegria de la Colina & García Mayo, 2009; Antón & DiCamilla, 1998; Swain & Lapkin, 2000). Results also suggest that L1 mediation during learner-learner interaction is impacted by task type and learner proficiency in the L2 (Storch & Aldosari, 2010; Swain & Lapkin, 2001).
While a number of researchers have reported on L1 mediation during learner-learner interaction, Swain and Lapkin (1995, 1998, 2001) have investigated the dual functions of language (i.e., social and cognitive) that unfold during interaction as learners complete a series of tasks. They examined instances where learners use language to identify a gap in their linguistic knowledge and to question their language production and use. Swain (2006) coined the term *languaging* to capture the dual functions of language during moments of knowledge building. Researchers have operationalized languaging as language-related episodes (LREs) and research reporting on LREs shows that the process of using language to reflect on language facilitates the completion of complex linguistic tasks (Swain & Lapkin, 1995, 1998) and fosters the co-construction of linguistic knowledge (Swain & Lapkin, 2002). Previous studies have identified various task-related and learner-related factors which affect LREs, including: (1) task type (Swain & Lapkin, 2001); (2) pair dynamics (Kim & McDonough, 2011; Storch, 2001, 2002a, 2002b); and (3) language proficiency (Kim & McDonough, 2008; J. Williams, 1999, 2001).

Moreover, socioculturally informed empirical research has established a link between languaging and L2 development (Swain & Lapkin, 1998, 2001). With the claim that languaging leads to L2 development, a select number of studies have investigated task-related and participant-related variables that impact the outcome of languaging on L2 development (Kim & McDonough, 2008; Kim & McDonough, 2011; Leeser, 2004; McDonough & Sunitham, 2009; Suzuki & Itagaki, 2009; Swain, Lapkin, Knouzi, Suzuki, & Brooks, 2009; Watanabe & Swain, 2007, 2008).

Although there is evidence of the pervasiveness of language as a symbolic tool, additional work in this area is warranted, especially with learners of third languages (L3s).

Learner-learner interaction during L2 tasks provides opportunities for learners to engage in meaningful interaction and draw on linguistic resources to support learning processes (e.g., L2
development). To further understand the functions of native language mediation in classroom-based settings, drawing on learner beliefs is highly relevant. Although there appears to be some consensus that L1 mediation can provide some benefits from the learners’ perspective (Mora Pablo, Lengeling, Zenil, Crawford, & Goodwin, 2011; Rolin-Ianziti & Varshney, 2008), the specific functions that their languages serve during the interaction remains underexplored. Thus, one-on-one interviews stand to inform our still limited understanding of the role of language mediation that occurs during learner-learner interaction.

1.2 Third and additional language development

With a population approaching 7 billion people (Index Mundi, 2012) and with more than 6,900 living languages (Ethnologue, 2012), bilingualism and multilingualism are more common in the world today than monolingualism (Grosjean, 2008; Hammarberg, 2010; Wei, 2008). Despite these facts, current theory and empirical research in SLA tend to ignore the uniqueness underlying the development of multilingual competencies, which characterizes more than half of the world’s population. A partial explanation for the dearth of empirical works on multilingualism lies in the conceptualization of the goals and aims of SLA research. In their introductory textbook, Gass and Selinker (2008) define SLA as follows:

SLA refers to the process of learning another language after the native language has been learned. Sometimes the term refers to the learning of a third or fourth language. The important aspect is that SLA refers to the learning of a nonnative language after the learning of the native learning. The second language is commonly referred to as the L2. As with the phrase “Second language,” L2 can refer to any language learned after learning the L1, regardless of whether it is the second, third, fourth, or fifth language (p.7)

Similar definitions abound in introductory textbooks, glosses, and references books (see also Block, 2003 for a discussion; Lightbown & Spada, 2006; Mitchell & Myles, 2004; Ortega, 2009). While SLA researchers recognize that the acquisition of a native language entails
different processes than the acquisition of an L2, a belief is that the process of acquiring an L2 or an L3 is similar. This claim may be erroneous and the adoption of a reductionist view may not bring to the surface the unique processes at work while acquiring L3s (De Angelis, 2007; De Angelis & Dewaele, 2009, 2011; Hammarberg, 2010).

Research in the field of third and additional language acquisition (TALA), primarily originating in Europe, is beginning to emerge. Despite the recency of research on L3 development, a growing body of work shows that the underlying mechanisms of L2 and L3 acquisition differ (see Cenoz & Jessner, 2009; De Angelis, 2007 for a review). Research findings show that multilingual learners have access to additional learning and metacognitive strategies (Cummins, 2007; Herdina & Jessner, 2002; Mißler, 2000) and that they benefit from heightened linguistic awareness (Herdina & Jessner, 2002; Jessner, 1999, 2005, 2006). These claims, however, have been examined primarily in Europe. Given that the study of multilingual learners is beset by a number of factors such as age of acquisition, language typology, simultaneous and consecutive acquisition, recency of exposure and acquisition, and crosslinguistic interaction (Aronin & Hufeisen, 2009; De Angelis, 2007; De Angelis & Dewaele, 2011; Jessner, 2006), expanding the scope of research to different parts of the world is critical. Thus, to reach a deeper appreciation of L3 development, empirical studies should embrace the dynamic and complex processes at work with L3 learners in a variety of contexts.

1.3 Motivation for the study

Learning an L3, similar to learning an L2, is a complex, dynamic, and long-term endeavor. Due to globalization, increased mobility, and the teaching of English as a Lingua Franca, multilingualism is becoming the norm in a number of contexts worldwide (Jessner, 2006). Therefore, it would seem naïve and imprudent to overlook multilingualism as a social and
cognitive phenomenon that is in fact real and pervasive. Moreover, given that SLA research has been investigating isolated pieces of the whole process, it is imperative to embrace an epistemology that accounts for the interconnectedness of social and cognitive factors. SCT, a theory of mediated mental development, views language and communication events as catalysts for the development of higher mental functions. Given the close relationship between cognition and social activities, adopting a Vygotskian perspective for the study of L3 development as a result of participating in various types of pedagogical tasks could expand our understanding of the role of language mediation in the development of an additional language.

To date, research from an SCT perspective has focused primarily on uncovering the functions of an L1 in the development of an L2, and only a select number of studies have examined the functions of an L2 on the development of an L3. Limiting the scope of research to the relationship between L1s and L2s is problematic on a practical and theoretical basis. In terms of practical concerns, multilingualism is the norm in the world and thus multilingual learners outnumber L2 learners and it is imperative that we better understand the processes of L3 development. In terms of theoretical concerns, theories of language development should address the unique cognitive and social dimensions of L3 development.

Pedagogical tasks are used by teachers and researchers alike in order to promote language development and to investigate the cognitive and social processes that are at work. From an SCT perspective, a small number of researchers have examined the impact of pedagogical tasks on L1, L2, and L3 mediation and on the specific functions that these languages serve to support the development of higher mental functions. To date, research findings remain inconclusive and have focused primarily on immersion contexts. As such, with the growing interest in task-based
pedagogies in all pedagogical contexts, it is critical that we understand what unfolds between learners of an L3 during a series of pedagogical tasks in authentic FL classrooms.

During the completion of pedagogical tasks, learners discuss lexical and grammatical gaps (e.g., lexis-based LREs and form-based LREs). The opportunity to participate in sustained conversation and to question language is critical for language development. Using LREs as a construct, a number of studies have shown a complex interaction between task type, the production and resolution of LREs, and language patterns. Similarly, LREs produced during task-based interaction have been shown to lead to language development; however, the relationship between LREs and L3s has yet to be investigated. Therefore, at this junction, researchers should continue to examine the social and cognitive functions of language during languaging between learners and extend the work to learners of L3s in intact classrooms.

Finally, obtaining both an emic and an etic perspective on language development is critical. Thus, learners’ beliefs and interpretations of language mediation and pedagogical tasks need be taken into consideration when examining the processes of L3 development. In light of the aforementioned gaps, the present study investigated the mediating functions of multilingual learners’ languages in an L3 FL classroom.

1.4 Present study

The present multiple case study was conducted with bilingual Spanish (L1) – English (L2) learners of French as an L3 in an intact FL classroom and was guided by four overarching and interconnected goals. First, the study explored the mediating functions that the L1 and the L2 of four focal participants served while participating in a series of pedagogical tasks in an L3 classroom-based context. This analysis provides rich and descriptive accounts of language mediation during pedagogical tasks that contribute to a holistic description of L3 development in
one particular context. Second, the study investigated languaging (i.e., LREs) during a series of pedagogical tasks that included different task features to examine task type effects on language patterns and on the occurrence and resolution of LREs. Third, the present investigation examined if and when the production of LREs in this context leads to L3 development. Finally, to provide a holistic interpretation of the social and cognitive processes at work during the completion of collaborative tasks, the study included the focal participants’ perspectives concerning language mediation. Also, to gain an emic perspective of the classroom activities that unfolded during a semester-long task-supported language classroom, I served a dual function: I was both the teacher and the researcher. The research was thus guided by the following four research questions:

RQ 1: What mediating functions do language(s) serve during four types of collaborative tasks, over time in an L3 classroom?

RQ 2: How does task type impact the occurrence and resolution of LREs in the L1, L2, and L3 by individual learners?

RQ 3: How do LREs lead to L3 development?

RQ 4: What are learners’ beliefs about using their languages during collaborative tasks?

1.4.1 Organization of the study

In Chapter 2, I provide a comprehensive review of the literature. The review begins with the theoretical underpinning of SCT and discusses, in detail, two core concepts of SCT: language mediation and the zone of proximal development (ZPD). The literature review then presents key empirical advances on L3 development. Finally, the review continues with the literature reporting on (1) L3 learners and multilingualism, (2) the role of language mediation, (3) languaging, (4) L3 development, and (5) learner beliefs. In Chapter 3, I present the multiple case
study approach that was adopted. From there, I provide a detailed description of the setting and I introduce the four focal participants. Chapter 3 concludes with a detailed description of the data collection procedures and the materials that were developed. Chapter 4 and Chapter 5 present the results in light of the four research questions. Chapter 4 answers research questions 1-3; it provides a cross-case analysis and it is followed by detailed accounts of each focal participant’s performance during the completion of four types of collaborative tasks. Chapter 5 answers research question 4. It presents the findings regarding the focal participants’ beliefs about L1 and L2 mediation in the classroom. In Chapter 6, I discuss the findings for each research question in light of previous studies. I conclude the chapter by considering the theoretical and pedagogical implications drawn from the study, addressing the limitations of the present study, and proposing future directions.
2 LITERATURE REVIEW

2.1 Fundamental concepts of sociocultural theory

Exploring cognitive processes underlying L2 development has been one of the core areas of study in SLA, with researchers investigating the role of input, interaction, and output on language development (Gass & Mackey, 2006a). However, critics argue that SLA researchers place too much emphasis on internal learner capacities and tend to ignore critical social, cultural, and affective factors that may impact interaction and, consequently, the development of additional languages (Block, 2003; Lantolf, 1996). In response, a number of researchers have begun using an SCT framework developed by Vygotsky. Vygotsky proposed SCT to study the development of cognition in children. SCT seeks to connect individuals’ cognitive development to the sociocultural settings in which they function (Vygotsky, 1978). Wertsch (1991) identified three major recurring themes in Vygotsky’s work: (1) the use of a genetic analysis to study higher mental functions, (2) the role of social dimensions in the development of higher forms of thinking, and (3) the claim that thoughts and actions are mediated by symbolic and physical tools.

In order to study the fluid nature of the development of human cognition, Vygotsky relied on genetic analysis which is comprised of four genetic domains: (1) the phylogenetic domain, (2) the sociocultural history domain, (3) the ontogenetic domain, and (4) the microgenetic domain (Vygotsky, 1981). Vygotsky saw how the study of these interrelated genetic domains could provide us with a holistic understanding of developmental processes underlying human cognition. The first of these, research within the phylogenetic domain, consists of comparing apes and humans. Research in this domain looks at problem solving. Unlike apes which are
limited to their physical realities, humans rely on physical and symbolic tools, especially language, to engage in problem solving activities. The use of these tools is what enables humans to mediate and alter their socially organized activities and think beyond the confines of the present context. According to Vygotsky, the use of mediational tools is what distinguishes humans from apes. The second, the sociocultural history domain, accounts for the distinctions between biological transformations and historical transformations. Historical processes are thus responsible for cultural development. According to Vygotsky (1930, as cited in Wertsch, 1985) “the process of the historical development of human behavior and the process of its biological evolution do not coincide; one is not a continuation of the other. Rather, each of these processes is governed by its own laws” (p. 31). In other words, while changes in biological functions govern development in the phylogenetic domain, the emergence and change of psychological tools govern the development within the sociocultural history domain (Wertsch, 1985). Tools become less dependent on the original spatiotemporal context. The third domain is the ontogenetic domain. Vygotsky (1978) argues that development involves two interconnected lines of development: the natural line of biological development, closely aligned with elementary mental functions, and the social or cultural line (i.e., higher mental functions). Development in the ontogenetic domain is the result of the integration of both biological and cultural development: children are first guided by biological constraints and are quickly influenced by their cultural environment. According to Vygotsky, the locus of control is, at first, external (i.e., it resides in our social environment). However, development in the ontogenetic domain marks a change such that outside influences become internalized and thus alter higher forms of thinking. In order to provide a unique explanatory framework of human development, it is necessary that both lines of development be integrated (Wertsch, 1985). The fourth domain, the microgenetic
domain, is where one can study the short-term formation of psychological processes. In this domain, development can occur during brief instances: “the development in question can be limited to only a few seconds, or even fractions of seconds” (Vygotsky, 1978, p. 61). Therefore, to study and understand the cognitive processes underlying the development of higher forms of thinking, researchers should consider development that occurs during a single training phase of an experimental task. Another important aspect is that development within the microgenetic domain is not stable or predictable and development is viewed “as fundamental qualitative transformation or ‘revolutions’ associated with changes in the psychological tools” (Wertsch, 1985, p. 81). Although the four domains form an integrated system (Wertsch & Tulviste, 1992), Vygotsky and many of his followers conducted most of their work in the ontogenetic domain because it is only possible to observe the entirety of development in this domain (Wertsch, 1985, 1991).

Today, Vygotskian principles are being applied to the study of L2 development (Block, 2003; Lantolf, 2006, 2000c; Ohta, 2000; Swain, 2000; Swain, Kinnear, & Steinman, 2011). When investigating the process of L2 learning, the ontogenetic and microgenetic domains highly inform our understanding of the developmental processes. Although researchers may attempt to study development in a single domain, Lantolf and Thorne (2006) caution researchers that “in studying the development of particular linguistic processes, for instance, at the microgenetic level, we must recognize that this is likely to have consequences for the continued ontogenetic development of the person” (p. 57). This perspective offers a more holistic understanding of L2 development. The present study will look for evidence of development that takes place within the microgenetic domain and, to a lesser extent, within the ontogenetic domain.
The second theme in Vygotskian approaches to the study of the mind is the role of social dimensions in the development of higher forms of thinking. The basic principle is that the development of human cognition can only be understood by considering the social environment. Activities that unfold in the social realm impact our unique mental functions. This notion was captured by the following statement:

“Any function in the child’s cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition… [I]t goes without saying that internalization transforms the process itself and changes its structure and functions. Social relations or relations among people genetically underlie all higher functions and their relationships (Vygotsky, 1978, p. 57).

From this perspective, the social environment is intrinsically connected to thinking and this development occurs within the zone of proximal development (ZPD), a concept that will be discussed in detail below.

The third theme, and one of the core concepts of an SCT of mind, is mediation. Vygotsky (1978) explains that the development of higher forms of thinking is mediated by culturally and socially constructed artifacts. Higher mental functions include memory, attention, rational thinking, emotion, and learning and development (Lantolf & Thorne, 2006). Artifacts are either material or conceptual. The former includes physical tools developed by humans and the latter, also termed symbolic tools, includes spoken and written language and gestures. Physical tools are externally oriented to exert control over the environment whereas symbolic tools are externally and internally directed to mediate or regulate our mental functions (Vygotsky, 1978).
2.1.1 Mediation

From an SCT perspective, researchers explore how language permits humans to create an indirect relationship, or a mediated relationship, between the mind and the world. During social and communicative events, language can serve interpersonal functions and intrapersonal functions: through language, humans establish social contact and engage in social interactions with others and with the self (Lantolf & Pavlenko, 1995). Intrapersonal functions take the form of egocentric speech or inner speech. Egocentric speech is a precursor to inner speech and occurs in social forms thereby providing a window into the development of higher mental functions. Inner speech enables humans to plan and regulate their activity (Wertsch, 1985) and is the final phase in the development of higher mental forms of thinking. Over time, egocentric speech becomes internalized indicating self-regulation and control over mental activities.

As it relates to L2 development, learners use language as a social and cognitive tool to mediate the language learning process (Antón & DiCamilla, 1998; Brooks & Donato, 1994; Lantolf, 2000a, 2000b, 2004, 2011; Swain, 1995; Swain & Lapkin, 1998, 2000). To date, the mediating functions of language have been the subject of inquiry in different contexts (e.g., L2 and FL contexts) and research settings (e.g., laboratory-based and classroom-based settings). To investigate the specific functions of language, research has relied on various tasks, such as collaborative tasks (e.g., story completion tasks, dictogloss tasks), individual writing tasks, problem-solving tasks, and introspective methods (e.g., think-aloud protocol). Findings show that language serves interpersonal functions which help learners gain control over the task and their mental activities thereby making the activity more manageable (Brooks & Donato, 1994; DiCamilla & Antón, 2004; Villamil & de Guerrero, 1996). Language also serves intrapersonal functions which have been identified as private speech. Private speech, the preferred term in the
L2 literature, is comparable to egocentric speech and is defined as a “form of externalized speech deployed by adults to regulate their own mental (and possibly physical) activity” (Lantolf & Thorne, 2006, p. 75). Several researchers investigate the mediating functions of private speech (Antón & DiCamilla, 1998; Brooks & Donato, 1994; Centeno-Cortés & Jiménez Jiménez, 2004; DiCamilla & Antón, 2004; Frawley & Lantolf, 1985; Ohta, 2001). Research shows that when faced with cognitively challenging tasks, adults externalize their speech which helps them gain control over the activity. It can thus be said that language used on both interpersonal and intrapersonal planes plays a central role in the development of higher mental functions.

The development of human cognition is also marked by qualitative changes in the ability to self-regulate our thoughts and actions. Wertsch (1979, as cited in McCafferty, 1994a) maintains that self-regulation is preceded by two intermediary stages: object-regulation and other-regulation. In the early stages of child cognitive development, thoughts and actions are regulated by physical artifacts found in their surroundings. During this stage, children rely on the use of objects to assist mental functions. The second stage, other-regulation, behaviors are shaped by explicit and implicit help from a more capable peer. Once a child has control over her/his thoughts and actions, the child is able to complete an activity independently. Self-regulation is what enables children to plan and organize their actions and thoughts. The concept of regulation has also been applied to the study of language development (McCafferty, 1994b). Another key concept of SCT concerning cognitive development is the ZPD which is discussed in the following section.

2.1.2 Zone of proximal development

According to SCT, social forms of mediation occur within the learners’ ZPD. The ZPD is defined as “the distance between the actual developmental level as determined by independent
problem solving and the level of potential development as determined though problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86).

Vygotsky makes a distinction between two levels of development, the child’s actual level of development and the child’s potential level of development. He explains that knowing what a child is able to do under the guidance of a more knowledgeable peer is more informative of their developing mental abilities than knowing what they are able to do independently. He also claims that the child’s mental activities are distributed between the child and the adult (or expert). Therefore the ZPD is determined or negotiated between two individuals (Wertsch, 1985) as it unfolds during interaction.

The ZPD is a useful construct to explore how learning occurs during interaction. Ohta (1995) defines the ZPD for L2 development as “the difference between the L2 learner’s developmental level as determined by independent language use, and the higher level of potential development as determined by how language is used in collaboration with a more capable interlocutor” (p. 96). In earlier work, the capable interlocutor was the adult, researcher, or teacher (Aljaafreh & Lantolf, 1994; Lantolf & Aljaafreh, 1995). However, it has been argued that during learner-learner interaction, one learner can offer help to a less knowledgeable peer, providing the less knowledgeable peer opportunities to participate in the interaction and engage in knowledge-building (Ohta, 1995, 2001). Moreover, within a single context or activity, the learner’s role can shift between the less and more knowledgeable peer (Donato, 1994; Guk & Kellogg, 2007; Ohta, 2001). Learning then does not occur as a result of participating in collaborative activities; learning occurs within the ZPD between learners who collaborate and co-construct knowledge where the learners are sometimes the expert and sometimes the novice (Guk & Kellogg, 2007; Lantolf, 2000b; Lantolf & Pavlenko, 1995; Ohta, 1995, 2000, 2001). In
sum, learning within the ZPD is a potentially shifting and complex interpersonal process, one which requires further empirical attention.

To study L2 development, the SCT framework takes into account a more comprehensive and complex set of factors which shape and influence the creation of the ZPD. These factors include the learners and their social and cultural histories, their individual goals, their symbolic and physical tools, their peers, and their teachers (Aljaafreh & Lantolf, 1994). As an analytical tool, the ZPD can be used to examine what learners are able to do with language individually and in collaboration with their partner. Moreover, researchers can examine the dynamic and irregular nature of language development within the microgenetic domain as it enables researchers to explore how knowledge is constructed by the learners in each interactional turn. In sum, collaborative activities that provide learners with opportunities to transform their higher mental functions are therefore critical for L2 researchers who explore how learners pool their resources to create knowledge within their ZPD.

The SCT theoretical perspective that frames language as a cognitive tool is steadily gaining more attention. To date, empirical studies have been conducted with learners of an L2 in a number of contexts including the French immersion setting, the FL context, and the ESL context. Due to globalization, increased mobility, and the teaching of English as a Lingua Franca, multilingualism is the norm in the world today (De Angelis, 2007; Grosjean, 2008; Hammarberg, 2010; Jessner, 2006; Sollors, 2009). Yet, few studies have explored L3 development from this perspective. The roles and mediating functions of learners’ multiple languages remain an elusive area of inquiry. As a result, it is critical that we broaden the scope of research to examine L3 development from an SCT perspective in order to understand the
cognitive and social functions of multilingual learner’s languages in the development of higher mental functions.

2.2 Multilingualism and L3 development

Research on multilingualism and L3 development is still in its infancy in comparison to the study of L2 development. Unlike SLA researchers who maintain that the acquisition of a language beyond the L2 engenders similar mechanisms as the acquisition of an L2 (Gass & Mackey, 2006a, 2007b; Gass & Selinker, 2008; Long, 1981, 1983), researchers investigating the acquisition of L3s and additional languages argue that the processes underlying L3 development are more complex than L2 development due to the greater number of factors at play (Aronin & Hufeisen, 2009; De Angelis, 2007; De Angelis & Dewaele, 2011; Jessner, 2006). To contextualize and understand recent findings in the field of L3 development, a necessary first step is to provide a definition of key terms.

De Angelis (2007) identified four terms that are used to refer to the field of study: (1) Multiple Language Acquisition, (2) Multilingual Acquisition, (3) Third Language Acquisition, and (4) Third or Additional Language Acquisition (TALA). She argues that each of these terms have some shortcomings. For example, the first of these, Multiple Language Acquisition, suggests the simultaneous acquisition of languages rather than the acquisition of different languages over time; the term Multilingual Acquisition creates a disconnect with SLA and SLA research; the term Third Language Acquisition is symptomatic of the term SLA which highlights the study of the third language only thus ignoring the study of additional languages. She explains that to more accurately represent the field of study, she prefers the term TALA. The term TALA highlights the study of languages that were learned after the L2 but also includes the study of all
languages that were learned beyond the L2. Following De Angelis (2007), when alluding to the field of inquiry, I will use the term TALA.

A second consideration is the appropriate term to describe individual learners. Currently, a distinction between bilinguals and multilinguals is not always clear (De Angelis, 2007; Kemp, 2009). For example, Grosjean (2010) defines bilinguals as “those who use two or more languages (or dialects) in their everyday lives” (p. 4). In turn, Saville-Troike (2012) defines multilinguals as individuals who are able to use two or more languages (p. 8). To capture the idea that L3 development may be different from L2 development, a better description of bilingual and multilingual learners is warranted. In the present study, multilinguals are individuals who are able to use more than two languages. In other words, multilinguals are, minimally, learning an L3.

Finally, there are some inconsistencies in terms describing the language that is being learned. In the field of SLA, researchers refer to the first second language as the L2 and refer to multiple languages learned after the L2 as L2s. This only captures a distinction between the L1 and the L2(s). Following Williams and Hammarberg (1998), in the present study, the L1 is the native language and the L3 is the target language. All other languages are labeled L2s. While this may obscure differences between learners who, in sequential order, are learning an L5 (e.g., David), it does capture the idea that each learner has had some experiences acquiring a language beyond the L2. Thus, to recapitulate, the present study is rooted in the field of TALA and is concerned with multilinguals learning an L3.

TALA research is beset by a number of factors. Next, I discuss three of the main factors: (1) order of acquisition, (2) contexts of acquisition, and (3) typological similarities of languages. The number of possible sequences of L3 development is greater than that of L2 development.
For instance, in learning an L2, there are only two possible sequences of acquisition: sequential acquisition (L1→L2) and simultaneous acquisition (L1 + L2). On the other hand, with learners of an L3, there are four possible sequences of language development: (1) consecutive acquisition (L1→L2→L3), (2) simultaneous acquisition of three languages (L1+L2+L3), (3) simultaneous acquisition of two languages after the L1 (L1→L2+L3), and (4) simultaneous acquisition of two languages before the L3 (L1+L2→L3). Cenoz (2000) explains that given these diverse trajectories, the study of L3 development may be even more complex than the study of L2 development. The study of L3 development is further complicated when considering interruptions in the study of one of the languages. Learners of an L3 may find themselves only using a subset of their languages at any given time and may experience attrition in one or more of their languages.

In addition to the order of acquisition, the contexts where languages are acquired present some additional challenges to the study of L3 development. In a first instance, similar to L2 learners, the quantity of exposure to the target language varies in each situation. For example, naturalistic settings may provide more exposure to the target language than classroom-based settings, especially in FL contexts; however, in the case of multilingualism, the amount of exposure to the native and the non-native languages is even more diverse. In addition to the exposure resulting from contexts, the possible combinations of formal instruction in classroom-based contexts and naturalistic contexts are greater. As such, when studying L3 development, multiple situational and social factors may impact our understanding of the processes at play.

A third factor that impacts the development and the study of L3 development is language typology. Languages that are typologically similar share phonological, morphological, and/or syntactic systems (Field, 2011). With L2 learners, the typological relationships are examined for
only two languages; however, in L3 development, the typological distance of both the native and the nonnative languages should be taken into account. For instance, in this study, the typological distance between Spanish and French is smaller than the distance between English and French. These relative distances between the L1 and the L2 may impact how languages are processed and these distances need to be considered in light of the target language. In sum, the order of acquisition, the contexts of acquisition, and the typological distance between languages are important factors to consider in the study of multilingualism.

Similar to the field of SLA, the theoretical frameworks that inform the majority of L3 research adopts a cognitive approach. The areas that have received more attention include cross-linguistic influences (CLI), metalinguistic awareness, and the multilingual lexicon (Cenoz, 2001; De Angelis & Dewaele, 2009). While these three areas contribute important information, in what follows I provide an overview of the key findings from the first two areas of research: CLI and metalinguistic awareness.

The first of these, the study of CLI, began to emerge in the 1970s and saw rapid growth in the 1980s. The term CLI, proposed by Sharwood Smith and Kellerman (1986), includes the study of language transfer, interference effects between languages, borrowing, and avoidance (Cenoz, 2001). While SLA research on CLI is chiefly concerned with the transfer of L1 knowledge onto an L2, L3 research examines the transfer of native and nonnative languages on L3 development.

 Several factors appear to impact the quantity of CLI on the development of L3s. For instance, CLI is impacted by (1) language distance and typology, (2) context of exposure, (3) proficiency in the nonnative languages (and in some cases in the L1), (4) recency of use, and (5) age and order of acquisition (Cenoz, 2001; De Angelis, 2007). These factors have been
examined in the areas of pronunciation, lexis, morphology and syntax (see e.g., Cenoz, Hufeisen, & Jessner, 2001). Research findings on CLI are complex and remain inconclusive.

A number of studies show that CLI is more likely to occur between typologically similar languages (Cenoz, 2001; Cheug, Matthews, & Lan Tsang, 2011; De Angelis, 2005; Fouser, 2001; Sanchez, 2011). However, there is evidence that CLI comes from more distant languages, regardless of the native/nonnative status (Bono, 2007, 2011; Gibson, Hufeisen, & Libben, 2001). For instance, Bono (2011) examined lexical transfer with speakers of French (L1) and English (L2) learning Spanish (L3) and found that learners often activate L2 lexical equivalents during informal conversations. Gibson, Hufeisen, and Libben (2001) examined whether typologically related L1s would facilitate or hinder the production of German (L3) prepositional verbs. In their study, they did not find any significant differences: Russian L1 learners and Chinese L1 learners performed equally well. Two influential perspectives have been proposed that could explain CLI: the psychotypological perspective and the ‘L2 Factor’ perspective.

The study of language typology is concerned with identifying structural similarities and differences between languages. While learners may in fact rely on a language that is typologically more similar, the perceived distance between languages may also impact CLI. Kellerman (1983) proposed the term psychotypology to refer to the language that is perceived as typologically closer to the target language. According to the psychotypological perspective, learners of L3s will turn to the language that they perceive as being closer to the target language: this could be either Language A or Language B. In the present context, Spanish L1 learners may perceive French (Language A) to be more similar to Spanish than English (Language B).

The second perspective, ‘L2 Factor’, examines the status of the L2. Leung (2007) operationalize the ‘L2 Factor’ as follows:
The ‘second language (L2) factor’ in L3 acquisition refers to the general tendency to transfer (representations) from L2(s) rather than L1. In online processing/performance terms, ‘L2 status’ is usually used to expresses the idea of general tendency to activate L2(s) rather than L1 (p.102).

Hammarberg (2001) and Williams and Hammarberg (1998) were the first to consider CLI from both native and nonnative languages. They hypothesized that learners may rely on their L2 to learn an L3 because the L2 and the L3 both share the status of a FL (1998). Hammarberg (2001) put forth two possible explanations for the ‘L2 Factor’. In a first instance, learners may be aware of the different mechanisms underlying the acquisition of an L3 and may reactivate L2 mechanisms that facilitated the acquisition of the L2. A second explanation is that learners may subconsciously suppress the L1 given that it is non-foreign. As a result, L2 strategies become more relevant to the acquisition of the L3.

While language (psycho)typology may offer some explanations to account for CLI, others maintain that the context in which speakers use and learn additional languages may also account for CLI. Grosjean argues that (1998, 2007, 2008) the interlocutors, the setting, and the topic in each context impacts the degree of activation of the different languages: what is known as the language mode. The language mode originally focused on bilinguals. In order to expand on the language mode, it is useful to consider two dominant views of bilingualism: the monolingual view of bilingualism (i.e., the fractional view of bilingualism) and the bilingual view of bilingualism (i.e., the holistic view). The monolingual view assumes that bilinguals have two independent language systems and sets of competencies. According to this view, a bilingual is the equivalent to the sum of two monolinguals. Bilinguals are evaluated in light of monolingual-like command of their languages and thus reflect a monolingual bias (Block, 2003; Cook, 1997; Ortega, 2009, 2010). The holistic view of bilingualism depicts bilinguals as
competent users of a complete system that is qualitatively different. Bilinguals rely on different languages for different purposes in order to satisfy the needs of different domains and contexts (Grosjean, 2007, 2008).

The relationship between the activation of two languages is visually represented in Figure 1 (Grosjean, 2008). Language A (depicted by the dark square) is the base language and is highly activated. Language B is depicted by the three hypothetical positions on the vertical axis. At position 1, the bilingual is said to be in monolingual mode such that Language B is only slightly activated. Conversely, at Position 3, the speaker is said to be in bilingual mode such that both Language A and B are highly activated. Movement along the monolingual-bilingual continuum is idiosyncratic: some learners could subconsciously position themselves on the monolingual mode whereas others will be on the other end of the continuum.

Figure 1: Visual representation of the language mode continuum

In the present study, the degree of activation of the L1 and the L2 may depend on the interlocutors, the formal classroom contexts, the pedagogical tasks, and perhaps the research factor. The participants in the study all shared the same L1; however, the interlocutors’ proficiency in the L2 and their use of the L2 outside the classroom setting could have impacted
their behaviors. Also, the context could impact the CLI: in this particular context, learners are learning an L3. The L2 may therefore be less activated than in other contexts. Finally, research factors are also hypothesized to impact the degree of activation. Learners are completing a series of pedagogical tasks that are devised to prompt the activation of their L3. Thus, it is reasonable to anticipate that French, the target language, is more highly activated than the L1 or the L2.

Grosjean (2008) hypothesizes about the relationship between three languages. He proposes an extension of the language mode to multilingualism. He proposes that trilingual speakers can be on the monolingual mode, bilingual mode, and/or trilingual mode, as captured by Figure 2. As depicted in the model, when a speaker is in a monolingual mode, only one language is activated. This is depicted by the dark square. The other two languages, said to be de-activated, are represented by the thin dark lines. This situation could arise when a trilingual speaker is in a context where everyone shares the same L1 or in the presence of a monolingual speaker. In the bilingual mode, two languages are activated (depicted by the dark square and the square with dark lines). This situation could arise with a trilingual speaker interacting with bilinguals or in situations where there are two monolinguals from different backgrounds. Finally, the trilingual mode is when a learner has all three languages activated to different degrees. For the present study, the learners could potentially be in the trilingual language mode because they all share the same languages.

![Figure 2: Trilingual language mode](image-url)
Similar to the bilingual language mode, activation is contingent upon several factors and is not uniform or universal. In review, several factors appear to impact CLI including psycho(typological) distance, ‘L2 Factor’, and the context of use. Although the aim of the present study is not to examine CLI of the L1 and L2 on L3 acquisition, the psychotypological perspective and the ‘L2 Factor’ perspective may offer some insights into the quantity of Spanish, English, and French that is used in a formal classroom setting. In order to provide a more holistic understanding of the roles of language mediation in L3 development, factors that impact the degree of L1 and L2 activation, such as the formal language classroom context, should also be acknowledged.

A second area of study that has emerged in the field of L3 development is metalinguistic awareness. Building on the notion that learning an L2 is cognitively different from learning an L3, Hammarberg (2010) maintains that L2 knowledge enriches the process of learning an L3 because learners can draw on metalinguistic knowledge derived from previous language learning experiences. Although metalinguistic awareness has been operationalized differently and inconsistently in the field, in the present study, metalinguistic awareness is operationalized as an “ability to focus attention on language as an object in itself or think abstractly about language, and, consequently, to play with or manipulate language” (Jessner, 2006, p. 42).

The notion that L3 learners have heightened metalinguistic awareness is motivated by the finding that bilinguals display greater awareness about language than monolingual learners (De Angelis, 2007; Fouser, 2001; Herdina & Jessner, 2002; Jessner, 1999, 2005; Lasagabaster, 2001; Thomas, 1988). The idea that multilingual learners are in an advantageous position is influenced by the work of Cummins (1976, 1979). He proposed two hypotheses to explain the impact of L1 knowledge on L2 development: the Developmental Interdependence Hypothesis and the
Threshold Hypothesis. The first of these, the Developmental Interdependence Hypothesis, is built on the notion that the knowledge of the L1, irrespective of attained proficiency in the L1, can be transferred towards L2 development. The second, the Threshold Hypothesis, is built on the assumption that there are two thresholds that will impact cognitive development and consequently language development. This hypothesis holds that learners must attain a certain level of proficiency in the L1 for there not to be any negative impact on the language acquisition and learners must reach a second threshold to experience beneficial impacts on language development.

These proposals were later extended to study of L3s. Lasagabaster (2001), drawing on the Developmental Interdependence Hypothesis, maintains that learners of an L3, regardless of proficiency levels in the L1 and in the L2, could experience positive CLI. Thus, learners of an L3 can draw on knowledge of native and nonnative languages. According to the Threshold Hypothesis, Lasagabaster explains that the first threshold is less relevant but that to experience some benefits, a certain proficiency in the L2 should be attained.

In review, the study of L3 development shows that there are several factors that impact CLI and the activation of the L1 and the L2. Also, research shows that multilingual learners may have a more elaborate understanding of language structures and use given their heightened metalinguistic awareness. Yet, the majority of the studies have approached the study of L3 development from a cognitive perspective and the study of L3 development from an SCT perspective remains underexplored. Given the recent advances in the field of SLA (i.e., integration of concepts and ideas from an SCT perspective (Gass & Mackey, 2006b)), I would hope to find similar discussions in the field of L3 development. With the empirical support for
the role of the L1 in L2 development, it would seem reasonable to find evidence of native and nonnative mediation in L3 development.

2.3 Tasks in language development

To review, I have introduced the theoretical framework that has informed the present study: SCT of mind. From this perspective, one of the goals is to examine the mediational means deployed by individuals during language-related activities. I then presented current advances in TALA and identified an important gap: the exploration of L3 development from an SCT perspective. One important empirical question is, what symbolic tools do multilinguals rely on to mediate the development of higher mental functions? In the present study, I investigated the roles and functions of native and nonnative languages and examined the impact of pedagogical tasks. In the field of SLA, there is growing consensus that pedagogical tasks provide learners a context for using language which could impact language development. Next, I introduce the construct of pedagogical tasks and major areas of study.

Since the mid 1980s, a number of definitions of tasks have become available. One influential definition, proposed by Ellis (2003), is:

A task is a workplan that requires learners to process language pragmatically in order to achieve an outcome that can be evaluated in terms of whether the correct or appropriate propositional content has been conveyed. To this end, it requires them to give primary attention to meaning and to make use of their own linguistic resources, although the design of the task may predispose them to choose particular forms. A task is intended to result in language use that bears a resemblance, direct or indirect, to the way language is used in the real world. Like other language activities, a task can engage production or reception, and oral or written skills, and also various cognitive processes (p.16)

Samuda and Bygate (2008) discuss some of the limitations of this definition which are relevant to the present study. They maintain that the analogy of tasks as a workplan considers the teachers’ pedagogical goals and tends to overlook learner agency. van Lier (2008) argues that
learning is contingent upon the activity and learner initiative. From this perspective, tasks are behavioral blueprints and are thus secondary because learners may interpret these in their own idiosyncratic ways. van Lier (2008) characterizes agency by three features: (1) self-regulation, (2) interdependency (i.e., agency mediates and is mediated by the context), and (3) awareness and accountability of one’s actions. Coughlan and Duff (1994) maintain that learners and teachers may thus not be guided by the same goals. Another limitation identified by Samuda and Bygate (2008) is that the term ‘holistic’ is needed in the operationalization of pedagogical tasks as the term ‘holistic’ conveys the notion that tasks involve real language use and the use of the four language skills. In this study, pedagogical tasks are operationalized following Samuda and Bygate’s (2008) definition:

A task is a holistic activity which engages language use in order to achieve some non-linguistic outcome while meeting a linguistic challenge, with the overall aim of promoting language learning, through process or product of both (p.69).

SLA researchers have used tasks extensively to elicit learner production; however, tasks are also the object of inquiry (Samuda & Bygate, 2008; Skehan, 1996). One of the aims of earlier SLA research was to identify task features that were hypothesized to impact the type of input and the negotiation of meaning that emerges during teacher-learner and learner-learner interactions. Results show that negotiation of meaning (e.g., comprehension checks, clarification requests) provides learners with (1) comprehensible input, (2) feedback, and (3) opportunities to modify the output to meet the interactional demands (Long, 1981, 1983; Pica, 1994). Ancillary benefits are that negotiation of meaning (i.e., comprehensible input) segments and simplifies language that can aid language development. The provision of feedback can push learners to notice language features, again hypothesized to facilitate language development. And finally, output, as stipulated by the Output Hypothesis (Swain, 1985), pushes learners to move from semantic
processing (passive knowledge) to syntactic processing. The benefits of tasks are also recognized in language teaching pedagogy. Tasks have been used in a number of classrooms. In their simplest forms, tasks are used to supplement structure-based syllabi, also known as Task-Supported Language Teaching (Samuda & Bygate, 2008). A stronger view of tasks, Task-Based Language Teaching (TBLT), places tasks at the center of the syllabus (Ellis, 2003).

With growing interest in the use of tasks, there is increasing pressure for the development of empirically grounded task difficulty classifications (Ellis, 2003; Robinson, 2001a; Skehan & Foster, 2001). Skehan (Skehan, 1996, 1998; Skehan & Foster, 2001) proposes a cognitive classification of task difficulty that can impact the degree of attentional demands on interlanguage development. Skehan and Foster (2001) have developed a three-part classification of task difficulty: (1) code complexity, (2) cognitive complexity, and (3) communicative stress. The first of these, code complexity, includes vocabulary load and linguistic complexity and variety. The second, cognitive complexity, is subdivided into two dimensions, namely, cognitive familiarity (e.g., topic familiarity, discourse, genre, and task familiarity) and cognitive processing (e.g., content and organization of the task, processing load, and quantity of information). The third dimension, communicative stress, includes time pressure (e.g., number of participants), length of text, modality, stakes, and opportunities of control.

A second cognitive complexity classification is the Triadic Componential Framework proposed by Robinson (2001b, 2003, 2007a, 2007b). This three-part classificatory system categorizes both tasks and learner variables. This framework includes: (1) task complexity-cognitive factors (i.e., variables relating to the design of the task), (2) task conditions-interactive factors (i.e., variables relating to interactional demands of a task), and (3) task difficulty (i.e., learner variables).
Proponents of TBLT are currently testing several aspects of tasks. Samuda and Bygate (2008) discuss eight areas that have received some attention but warrant further attention. These include (1) teachers’ procedures and processes (Samuda, 2001), (2) learners’ procedures and processes, (3) task design (e.g., task complexity, roles required by task) (Baralt, 2010; Gilabert, 2005; Kim, 2009; Nuevo, 2006; Robinson, 1995, 2001b, 2011), (4) conditions of implementation (e.g., task familiarity, planning time, task repetition) (Bygate, 2001; Foster, 2001; Kim, in press; Lynch & Maclean, 2000; Yuan & Ellis, 2003), (5) dynamics around the tasks (e.g., negotiation of meaning) (Gass & Varonis, 1985; Long, 1981, 1983; Swain & Lapkin, 2000, 2001), (6) construal of tasks by learners and teachers (Murphy, 1993), (7) individual differences (Dornyei & Skehan, 2003), and (8) the relationship between tasks and curriculum. Although the relationship between these features continues to form the basis of much empirical research, there is positive evidence that tasks are important tools and vehicles that foster language development (see e.g., Robinson, 2011).

With tasks then, learners are afforded multiple opportunities to use language in meaningful interactions with their peers. By participating in meaningful interactions, in line with an SCT perspective, learners can use language to mediate their thoughts and actions and – with the guidance of their peers and/or teacher – may be able to achieve higher levels of language. As such, researchers from an SCT perspective have also examined the role of tasks in language pedagogy, the topic of the following section.

2.4 SCT and pedagogical tasks

From an SCT perspective, language mediates and transforms our intramental activities. Based on Vygotskian principles, language – including the L1 – acts as a cognitive tool that
supports learners during the completion of complex linguistic tasks (Vygotsky, 1978, 1986). Although the L1 has been negatively portrayed and deemed counterproductive in certain contexts, there is growing empirical support that L1s serve cognitive functions in L2 learners’ development of higher mental functions (see e.g., Cook, 2001; McMillan & Rivers, 2011; Roling-Ianziti & Varshney, 2008). More recently, L3 researchers are extending this notion and claim that L1s and L2s can serve mediating functions in the development of an L3. Drawing on the use of tasks, it becomes possible to observe how language(s) mediate language learners’ higher mental functions. In the next section, I discuss current empirical advances that investigate the role of tasks and language mediation on language development with, primarily, learners of an L2.

2.4.1 L1 mediation

Current thinking on L1 mediation in FL classrooms is that learners can benefit from judicious L1 mediation. One of the first studies that examined L1 mediation where L1 functioned as a cognitive tool was conducted by Brooks and Donato (1994). They investigated the mediating functions of the L1 by analyzing language produced during a two-way information gap task with English (L1) learners of Spanish (L2). They identified three functions. One of the functions germane to the present discussion is the production of metatalk which is defined as “talk by the participants about the task at hand and the discourse that constitutes the task” (p. 266). The authors maintain that metatalk in the L1 helps learners establish control over the task because the L1 allows them to initiate, sustain, and extend the discourse beyond what they would be able to do if relying solely on the L2. Subsequently, Villamil and de Guerrero (1996) explored peer talk produced in peer-reviewing writing activities with 54 Puerto Rican Spanish (L1) students from three intact ESL classes. Their analysis of the transcripts led to the identification of
several interpersonal functions for the L1: (1) making meaning, (2) retrieving language knowledge, (3) exploring and expanding on the content, (4) guiding actions, (5) maintaining dialogue, and (6) providing scaffold throughout the task. Intrapersonal functions were also identified such that private speech produced in the L1 serves to guide behaviors and actions and to release the affective load.

Antón and DiCamilla (1998) implemented collaborative writing tasks in a laboratory setting with five dyads of English learners of Spanish (L2). Interpsychological and intrapsychological functions were identified. With respect to the former, learners use the L1 to: (1) access L2 form, (2) reflect on form and content, (3) provide scaffold within their ZPDs, (4) fulfill metalinguistic functions, (5) evaluate and understand meaning, and (6) fulfill affective/social functions. The L1 also serves intrapsychological functions including self-directed questions and self-evaluative comments. Antón and DiCamilla maintain that learners create a social and cognitive space via their L1. These earlier studies provide compelling evidence that the L1 serves cognitive and social functions; however, these studies focused primarily on the functions and did not examine the complex relationship between language functions and task-related and learner-related variables. Subsequent laboratory and classroom-based studies examine how task type impacts and learner proficiency impact L1 mediation.

2.4.2 Task effects on the mediating functions

Research examining the impact of tasks on the mediating functions of L1s and L2s is inconclusive. Although there is some evidence that language serves similar functions during different types of tasks (e.g., story completion task and dictogloss task), others have identified task effects on L1 mediation (e.g., text reconstruction task, writing tasks, and dictogloss tasks).
The first study that investigated task effects on the specific mediating functions that the L1 serves was conducted in a classroom-based setting. Swain and Lapkin (2000) compared the quantity of L1 mediation and the specific mediating functions of the L1 with two groups of learners who each completed either a story completion task or a dictogloss task (Wajnryb, 1990). They found that the quantity of L1 mediation by the two groups of learners did not reach significance: The story completion group relied on L1 mediation for 29% of the turns and the dictogloss group for 21% of the turns. In addition to general distribution, they identified three principal mediating functions of the L1. The first category, moving the task along (i.e., task management), included turns that focused on sequencing images (story completion task), understanding the story, and retrieving semantic information. The second category, focusing attention, included turns where learners talked about the form, provided explanations, and retrieved grammatical information. The third category, aiding interpersonal interaction, consisted of turns that included off-task comments and disagreements. The most frequent function of the L1 for both tasks was task management. They also found that the story completion task engendered greater L1 mediation for lexical searches than the dictogloss task; however, their results did not reach significance. Overall, their findings support the claim that the L1 supports learners during the interactions but that the type of task did not impact the specific mediating functions of the L1.

The mediating functions of language have also been investigated in laboratory-based settings and the results are complex. To investigate the functions of the L1, Storch and Wigglesworth (2003) conducted a study with 12 ESL learners. In their study, learners who shared the same L1s were paired up. The learners completed a text reconstruction task and a joint composition task. Overall, they found limited evidence of L1 mediation in this context: the
results show that only two dyads made use of the L1. More importantly, the two dyads only began to mediate the completion of the task via their shared L1 after receiving explicit instructions to rely on L1 mediation when and if they felt compelled to. One of the dyads relied on L1 mediation 50% of the time during the text reconstruction task and only 25% of the time during the joint composition. The other dyad relied on L1 mediation 50% of the time during the joint composition and 30% during the text reconstruction task. Their analysis also uncovered four specific functions of the L1: (1) task management, (2) task clarification, (3) vocabulary and meaning, and (4) grammar. For the joint composition task, the L1 was used primarily for task management and task clarification purposes. For the reconstruction task, L1 mediation was primarily for meaning and grammar. Alegría de la Colina and García Mayo (2009) explored Spanish (L1) EFL learners’ L1 mediation patterns during three tasks: learners either carried out a story completion task, a dictogloss task, or a text reconstruction task. Alegría de la Colina and García Mayo identified two functions for the L1. The first of these, metacognition, included clarifying or setting task procedures, discussing content and meaning, and managing tasks. The second, metatalk, included turns where participants were discussing vocabulary and grammar. They reported a task type effect on language mediation: the dictogloss task led to greater L1 mediation for metacognitive functions and the text reconstruction task engendered more L1 mediation for metatalk. They explained that these differences corresponded to the cognitive demands imposed by the task. The story completion task (i.e., jigsaw task), which included numbered pictures, had a reduced cognitive load because learners could subdivide the task; yet, learners did not receive linguistic input leading them to rely on L1 mediation for lexis-based metatalk. The dictogloss task led to metatalk centered on spelling and grammar as a result of receiving oral input. Finally, text reconstruction generated the highest amount of metatalk.
because students were required to address grammatical problems. Findings indicate that task type impacts the mediating functions the L1 serves; however, the different patterns of L1 mediation across the tasks warrant further empirical studies.

To date, a majority of studies have examined learner-learner interaction in face-to-face contexts. However, L1 mediation has also been investigated in computer-mediated communication (CMC) settings which enable learners to interact with others in virtual contexts. Thoms et al. (2005), investigated the functions the L1 played using an on-line chat. Chat logs from English (L1) speakers learning Chinese, German, or Spanish completing a CMC jigsaw task were analyzed. Results confirm previously identified functions, including moving the task along, focusing attention, and interpersonal interactions (Swain & Lapkin, 2001). However, unlike findings from face-to-face interactions, they did not find evidence of L1 mediation that focused on form. Their study provides further evidence that the context in which the task unfolds impacts the functions the L1 serves.

2.4.3 Combined effects: Task-type and proficiency

Few studies to date have investigated the combined effects of task type and language proficiency on L1 functions. To address this gap, Storch and Aldosari (2010) compared the functions the L1 serves during a story completion task, a written composition task, and a text-editing task with 36 Arabic (L1) learners of English (L2). Three groups of proficiency pairings were established: higher-higher proficiency dyads (H-H), lower-lower proficiency dyads (L-L), and mixed proficiency dyads (H-L). Their analysis included all single word utterances and turns. They identified two types of turns: total/predominant L1 turns (e.g., turns containing an equal or greater number of L1 words) and minor L1 turns (e.g., turns containing fewer L1 words). They reported that the text-editing task elicited the largest amount of L1 mediation and was highest for
the L-L dyads. No significant differences were observed between the story completion group and the written composition group. The majority of the L1 turns were total/predominant turn and the percentage was significantly higher for L-L dyads. In addition, they uncovered a task and proficiency grouping effect. The editing task engendered the highest percentage of total/predominant L1 turns and was predominant for L-L dyads. The story completion task elicited the greatest amount of L2 mediation. With respect to the specific mediating functions, they identified five functions: (1) task management (e.g., clarifying instructions, getting learners’ attention, commenting on the quality of work, choosing the topic, negotiating the sequence, and producing phatic expressions); (2) discussion and formation of ideas; (3) grammar deliberations; (4) vocabulary deliberation; and (5) mechanics deliberation. For the story completion task and text-editing task, the L1 was used primarily for task management and vocabulary deliberations. For the written composition task, the L1 was used for generating ideas, vocabulary deliberations, and task management. To summarize their findings, the L1 primarily served task management functions followed by negotiation of vocabulary, supporting previous findings (Storch & Wigglesworth, 2003; Swain & Lapkin, 2000; Thoms, et al., 2005). They conclude that task type impacts the amount of L1 mediation and that this effect is most salient for L-L dyads.

Studies reporting on L1 mediation focus on describing the functions of the L1 and the impact of task type on these functions. Although the study of L2 functions in the L3 development is an underexplored area, two studies investigated CLI on lexical switches and attributed L2 functions to these lexical switches. Hammarberg (2001) conducted a longitudinal case study with a learner of Swedish as an L3. L3, in this study, was operationalized as the language currently being learned, while any language learned after the L1 was considered an L2. Their participant was in fact learning a fifth language: English (L1), German (L2), French (L2),
Italian (L2), and Swedish, the L3. This two-year exploratory study was concerned with naturalistic acquisition (i.e., the participant learned Swedish through exposure at work and social contexts). During this 2-year period, the focal participant was interviewed approximately 52 times. They identified seven functions of the L1 and L2 switches and include the following: (1) editing functions (self-repairs); (2) meta-comments (e.g., comments on the communicative situation); (3) meta-frame (e.g., a question about lexis); (4) explicit insertion of lexis; (5) implicit insertion of lexis; (6) non-elicited insertion of lexis; (7) utterances with no pragmatic function. The main finding is that the learner relied on the L1 (English) and German (L2) and seldom turned to other L2s to support the discourse. Moreover, they found that L1 mediation served pragmatic functions and the L2 provided lexis. Finally, they report that the amount of L1 and L2 mediation decreased significantly around the eight month.

Bono (2011), primarily concerned with lexical transfer, also examined the specific roles that the L1 and the L2 served in the acquisition of an L3. In her study, 42 participants taking a Spanish class completed a series of informal conversation tasks outside regularly scheduled classes. Her rationale for using informal conversation topics was that she believed it would increase the probability of language switches into other languages. While the majority of their participants shared a similar background, namely, French (L1), English (L2), and learning Spanish (L3), some had studied German (L3) before Spanish (L4). In their study, they identified three functions of the participant’s languages: (1) pragmatic functions, (2) metalinguistic functions (e.g., reflection on linguistic forms), and (3) lexical inserts. Lexical inserts were further divided into three categories. The first of these, explicit inserts, are items that are embedded in a metalinguistic frame/question. The second, implicit inserts, is an implicit request for a lexical item (indicated via raising intonation). And the third, non-elicit inserts, are inserts that do not
indicate any request. They found that the most frequent functions of the L1 and the L2s were implicit lexical inserts and these were more frequent with the beginners. Moreover, a total of 10.5% of the lexical inserts were realized through the L2. Interestingly, a majority of these inserts (63%) constituted non-elicit inserts. The other two functions were mediated via the L1. Their findings support the ‘L2 Factor’ hypothesis in that learners turned to a typologically more distant language during the tasks.

In review, a number of studies provide empirical evidence that learners of an L2 rely on L1 mediation: the L1 acts as a cognitive and social tool that mediates the development of higher mental functions. More recently, the idea that other languages can provide support has been examined in naturalistic settings. However, research adopting an SCT perspective has yet to examine the cognitive and social functions of learners’ L2s in the development of an L3, and importantly, in classroom-based settings. With the present study, the role(s) of the L1 and the L2 was investigated with four focal participants who completed a series of collaborative tasks over the course of one academic semester. The study contributes to our understanding of task type effects on the functions of the L1 and the L2 in one authentic FL classroom. While further explorations of L1 and L2 mediation are warranted, the relationship between L1-L2 mediation and L3 development needs to be considered. The following section presents evidence that L1s provide L2 learning opportunities.

2.5 Languaging

SLA researchers contend that comprehensible input plays a critical role in L2 development; however, Swain illustrates that French immersion students become quite fluent in the target language but that syntactic and morphological accuracy appears to plateau. Because learners in French immersion programs receive large amounts of input, she argues that input is
insufficient for L2 development and that it is necessary to consider output as a cognitive tool. Swain (1995) proposes the Output Hypothesis which highlights three functions of output: (1) noticing gaps in the language system, (2) testing hypotheses, and (3) reflecting on language (i.e., metalinguistic functions). The first function of L2 output is that learners may become aware of a gap in their linguistic system when unable to communicate something or after receiving feedback. Noticing a gap pushes learners to modify their output and to fill the perceived gap which triggers cognitive processes. Output also permits learners to test hypotheses about language. For instance, when faced with a linguistic problem, learners verbalize possible ways to use a target structure. Putting the target structures through a series of tests suggests that learners use output to construct and build their linguistic knowledge (Swain, 2000). Finally, output serves metalinguistic functions, an idea deeply rooted in SCT. Swain claims that “using language to reflect on language produced by others or the self, mediates second language learning” (Swain, 2005, p. 478). Output is the externalization of internal psychological activities that are in the process of developing which are internalized in due course.

Today, Swain (2000, 2006) maintains that the term output is problematic as it is often interpreted as a product thus reflecting what learners are able to produce. To capture the idea that output serves cognitive functions, she proposes alternate terminology, such as collaborative dialogue (Swain, 2000) and today, languaging (Swain, 2006). Languaging is a cognitive and social activity that leads to the construction and shaping of linguistic knowledge, where language functions as a socially-constructed cognitive tool that mediates its own construction. Consistent with her most recent proposal, the term languaging will be used to refer to studies that examined collaborative dialogues and languaging throughout the remainder of the dissertation.
2.5.1 Languaging: Language-related episodes

The exploration of languaging as a source of L2 learning has received considerable attention (Kim, 2008a; Kim & McDonough, 2011; McDonough & Sunitham, 2009; Swain, et al., 2002; Swain & Lapkin, 1995, 1998, 2001, 2002; Swain, et al., 2009; Watanabe & Swain, 2007). Building on the notion that language mediates our mental activities, languaging enables learners to engage in meaningful conversations about language that leads to the internalization of new linguistic forms. Instances of languaging are operationalized as Language-Related Episodes (LREs) which are defined as “any part of a dialogue where the students talk about the language they are producing, question their language use, or correct themselves or others” (Swain & Lapkin, 1998, p. 326). Researchers explore the types of LREs (e.g., Swain & Lapkin, 1995, 1998, 2002), their resolution (e.g., Kim, 2008b; Kim & McDonough, 2008; Leeser, 2004; Swain & Lapkin, 1998), and language development as a result of LREs (e.g., Kim & McDonough, 2011; Swain & Lapkin, 2001).

An analysis of language use during tasks has led to the identification of several types of LREs. Swain and Lapkin (1998, 2002) identify three types of LREs: (1) lexis-based LREs, (2) form-based LREs, and (3) discourse-based LREs. Lexis-based LREs includes instances where learners discuss vocabulary items; the second includes instances where learners discuss spelling, aspects of morphology, and syntax; and the third includes discourse markers and sequencing. In the literature, there is some variation in the categorization of LREs. Williams (1999) and Lesser (2004) define lexis-based LREs as instances where learners talk about meaning, spelling, and pronunciation and grammar-based LREs as instances where learners address aspects of morphology and syntax. Given these differences, the operationalization of LREs should be clearly defined as this can affect results and the interpretation of data.
Researchers are also concerned with the resolution of LREs. Addressing the resolution of LREs is critical if we are to understand if and how languaging leads to development. Empirical findings indicate three outcomes of LREs: (1) LREs can be correctly resolved, (2) incorrectly resolved, (3) or not resolved (Kim & McDonough, 2008; Kim & McDonough, 2011; Leeser, 2004; Swain & Lapkin, 1998). With the first, learners correctly solve linguistic problems. With the second, learners select the incorrect target form. And with the third, learners are unable to resolve linguistic problems and continue with the task.

Languaging has been investigated in a variety of contexts including laboratory settings (e.g., Swain & Lapkin, 1995, 2002) and classroom-based settings (e.g., Kim & McDonough, 2008; Leeser, 2004). It has also been researched in immersion contexts (e.g., Swain & Lapkin, 1995, 2002), L2 contexts (e.g., Kim & McDonough, 2008; Watanabe & Swain, 2007), and FL contexts (e.g., Leeser, 2004; Storch & Aldosari, 2010). Languaging has been explored using a variety of tasks including dictogloss (Kim, 2008a; Kim & McDonough, 2008; Kowal & Swain, 1994; Leeser, 2004), story completion (Swain & Lapkin, 1998), joint writing tasks (Storch, 2001; Watanabe & Swain, 2007), and self-access computer tasks (McDonough & Sunitham, 2009). Finally, the relationship between languaging and various factors have been explored, for example, proficiency in the target language (Kim & McDonough, 2008; Leeser, 2004; Watanabe & Swain, 2007); the nature of the task (Kowal & Swain, 1994; Swain & Lapkin, 2001); and pair dynamics (Storch, 2001, 2002a; Watanabe & Swain, 2007). The following sections present studies conducted in laboratory and classroom settings highlighting how task type and learner proficiency impact the production and resolution of LREs. The review provides evidence that languaging is a mechanism of internalization such that it leads to L2, and potentially, L3 development.
2.5.2 Languaging: Laboratory settings

Empirical studies have been conducted in laboratory settings with immersion and ESL learners. In these controlled settings, the analysis of data elicited during oral and written tasks and think aloud protocols indicates that learners identify and resolve linguistic gaps as a result of languaging.

Swain and Lapkin (1995) investigated languaging with grade eight French immersion students. Each learner completed an individual writing task in the presence of a researcher and revised their work with a red pen. During these activities, learners were asked to think aloud, either in French or English. The more proficient learners produced a greater number of LREs during the drafting phase and applied grammar rules during the editing phase to resolve LREs. Moreover, they show that languaging during the drafting phase was lexis-based but form-based and discourse-based during the editing phase. Swain and Lapkin (2002) report on the occurrence of languaging that emerged between two learners while completing a multi-stage writing task and make explicit connections between languaging and L2 development. Learners first completed a story completion task, orally then written, and then jointly identified differences between the original version and a version that had been reformulated by a NS. Learners produced a greater number of form-based LREs during both stages. To determine whether noticing of discrepancies between the original and reformulated version led to learning, learners completed an independent writing task. The authors report that 80% of the LREs were successfully integrated in the final draft. This was taken as evidence that languaging can lead to L2 development.

To investigate the impact of proficiency on languaging opportunities, Watanabe and Swain (2007) conducted a partial replication of Swain and Lapkin (2002) with 12 Japanese ESL
learners. Of the 12 participants, four participants completed two writing tasks, one with a more proficient learner and one with a less proficient learner. Their findings indicate that when learners collaborate with a more proficient learner, they produce a greater number of LREs; however, when collaborating with a less proficient peer, learners obtain higher post-test scores on target items. To summarize, findings highlight benefits of languaging on L2 development across proficiency levels in laboratory-based settings. However, it is necessary to conduct research in classroom-based settings as it may “provide a different perspective on the implementation of theoretical principles” (Swain & Lapkin, 1998, p. 323). The following section presents findings from classroom-based settings.

2.5.3 Languaging: Classroom-based setting

To complement the invaluable insights from laboratory-type settings, a number of researchers are exploring languaging within classroom-based settings including French immersion classrooms, ESL classrooms, Korean SL classrooms, and Spanish FL classrooms.

One of the first studies to be conducted in a classroom-based setting was Swain and Lapkin (1998). In this study, they implemented a story completion task in four intact grade eight French immersion classes wherein learners produced an oral story and then wrote it out. Swain and Lapkin report on the LREs produced by the four groups and also compare the groups’ performance to a single dyad. Overall, the learners produced more form-based LREs than lexical-based LREs. To determine the impact on learning, the researchers administered a post-test which consisted of tailor-made posttest items based on their learners’ production and resolution of LREs during the treatment phase. The authors highlight a positive correlation between the number of LREs and their posttest scores. The close examination of the single dyad’s performance shows a complex picture: compared to the rest of the class, this dyad
produced a larger number of LREs and spent more time on task. This suggests that within a
single class, learners approach a task differently and benefit differently from learner-learner
collaboration. Further studies which provide detailed analysis of individual dyads are needed to
distinguish task effects on the production and resolution of LREs and their connection to L2
learning opportunities.

2.5.4 Proficiency effects on languaging during task performance

Within a single language classroom, teachers often observe global proficiency differences
among their learners. An important empirical question is whether learners with higher and lower
proficiencies benefit equally from languaging during collaborative tasks. Proficiency in different
skill areas is also quite common among learners, for instance, some may have stronger aural
skills whereas others may have stronger analytical skills. As a result, learner proficiency
variables and types of tasks that tap into different skill areas have been the subject of recent
studies. I now illustrate findings that show how languaging is contingent upon learner
proficiency and task type.

Williams (1999, 2001) explored the relationship between proficiency and languaging
with a group of ESL learners registered in four different levels. She reports that the number of
LREs increases with proficiency. Given the reality that teachers often identify multiple
proficiency levels with a single group of learners, it is imperative that the relationship between
proficiency within one classroom and LREs be considered. Lesser (2004) investigated the impact
of learner proficiency on the focus and quantity of LREs. In his study, English learners of
Spanish completed a dictogloss task. He explains that the number of LREs increases with
increasing learner proficiency. Moreover, he reports a higher number of form-based LREs which
is attributed to the nature of the task: Dictogloss tasks require learners to focus on form as a
result of the oral input. Kim and McDonough (2008) further investigate the impact of proficiency on the occurrence and resolution of LREs produced during a dictogloss task. They observe a greater number of lexical LREs for learners who collaborated with a more proficient peer; however, no significant differences of form-based LREs are reported. Finally, learners collaborating with a more proficient peer correctly resolved LREs with greater frequency. Their different findings with respect to types of LREs could be attributed to the learners’ L1. As such, languaging in languages other than English needs to be examined.

Overall, researchers report a proficiency effect on patterns of interaction and on L2 development. Some findings suggest that interacting with a less proficient peer leads to more LREs (Watanabe & Swain, 2007), whereas others report greater benefits when interacting with a more proficient peer (Kim & McDonough, 2008; Leeser, 2004). However, the relationship between proficiency and L2 development is inconclusive. Given the contradictory nature of the findings, there is a need for additional classroom-based studies with learners with different proficiency levels. Moreover, Kim & McDonough (2008) hypothesize that learners’ linguistic backgrounds may influence the nature of LREs, as such, research with learners with different L1s needs to be conducted. And finally, only a select number of studies investigate how LREs during task performance lead to L2 development (Watanabe & Swain, 2007). As such, additional work investigating development needs to be conducted.

2.5.5 Languaging and language development

The relationship between languaging and L2 development is complex and the language development as a result of engaging in LREs could be influenced by several factors including learner proficiency and the types of task. To examine the production of LREs as a mechanism for language development, researchers in the French immersion context developed tailor-made
posttest items. Tailor-made post-test items are based on LREs occurring during task performance. LaPierre (1994, as cited in Swain, 1998) conducted a pilot study for her M.A. thesis under the supervision of Merrill Swain to test the feasibility of such a testing method. Learners in intact classrooms completed a dictogloss and items that originated in LREs were tested using multiple choice items, fill-in the blanks, translation, and open-ended items. They found that learners successfully responded to 79% of the items that were based on correctly resolved LREs and 29% for items that were based on incorrectly resolved LREs. Swain and Lapkin (2001) conducted a study with English (L1) learners of French (L2) in a bilingual context. They devised two tasks, a dictogloss and a story completion task (Gass & Mackey, 2007a). To establish a link between languaging and L2 development, they created tailor-made post-test items based on LREs occurring during task performance. Post-test results show that learners who completed the dictogloss task produced more accurate language, made greater use of discourse structures, and made greater attempts to produce vocabulary and complex linguistic structures. However, they did not uncover significant differences on the posttest scores across the two groups. Recently, Kim and McDonough (2011) examined how to promote attention to form using pre-task modeling. In their study, Korean learners of English completed three tasks, two of which are comparable to those from the present study: a decision-making task and a dictogloss task. In addition to their finding that pre-task modeling fosters more LREs, they found that lexis-based LREs were more frequent than form-based LREs during the decision-making task. They also looked at the resolution of LREs and found that correctly resolved LREs outnumbered the incorrect and unresolved LREs.
2.5.6 Pair dynamic and languaging

While task features and learner proficiency appear to impact languaging, Storch provides compelling evidence that the relationships that develop between learners are of equal importance. Storch (2001, 2002a) devised a taxonomy that was based on the principles of mutuality and equality. Mutuality refers to the level of engagement between learners, and equality refers to the degree of control that learners assume over the task. Based on these principles, she proposes four distinct patterns of interaction: (1) collaborative, (2) dominant/dominant, (3) dominant/passive, and (4) expert/novice. The first of these, collaborative, are dyads that show high levels of engagement and share the responsibility of the task. The second, dominant/dominant, are dyads that are not engaged with the task and one learner assumes more control over the task. The third, dominant/passive, includes learners who are neither engaged with the task or with each other. Finally, expert/novice includes dyads that show high levels of engagement with each other where one learner is in control of the task but involves his peer.

Storch (2001, 2002a) found that collaborative and expert/novice relationships are more conducive to language development. Recent studies have investigated the relationship between pair dynamics and languaging. Findings show a complex relationship between pair dynamics, learner proficiency, and the production and resolution of LREs (Kim, 2008b; Leeser, 2004; Watanabe & Swain, 2007; J. Williams, 2001). The relationship between pair dynamics in L3 classrooms has yet to be investigated.

To summarize, researchers reporting on languaging have made use of a variety of tasks presenting evidence that collaborative tasks provide learners with opportunities to use language as a cognitive tool, where language mediates the construction of linguistic knowledge. Based on
findings from collaborative tasks in laboratory and classroom settings, three types of LREs have been reported: lexis-based, form-based, and discourse-based. In addition, researchers report three types of outcomes for LREs: correctly resolved, incorrectly resolved, unresolved. Results show that resolution is impacted by learner proficiency and task types. While describing and quantifying the types of LREs is informative, further work comparing languaging across tasks and a finer grained analysis of how LREs are resolved is warranted. Moreover, given that the impact of tasks was evaluated by comparing performance from two groups, it is imperative to compare one learners’ performance and production on a series of tasks.

2.6 Learner’s beliefs about L1 mediation

Literature reporting on the specific functions of the L1 as well as the literature reporting on LREs during task performance suggests that L1s serve important functions. These observations are, however, primarily based on task-performance data alone. To understand when and why learners turn to L1 mediation, it is necessary to elicit learner beliefs and attitudes towards L1 mediation in the language classroom. Beliefs are defined as “student opinions on a variety of issues and controversies related to language learning” (Horwitz, 1988, p. 284). A small number of studies have examined learners’ beliefs about L1 mediation and provide some support that L1s serve interpersonal and intrapersonal functions during language tasks.

Storch and Wigglesworth (2003) elicited ESL participants’ views and beliefs about L1 mediation in ESL classrooms. This aspect of their study was very helpful given that only two of the six dyads had used their L1 during task completion in a laboratory-based setting. The participants reported that the L1 enables them to discuss vocabulary and grammar and to argue a point. However, students clarify that they feel reluctant to mediate the completion of the task via the L1 as it slows down the activity and because they have a responsibility to use the L2 as much
as possible in the ESL setting. Rolin-Ianziti and Varshney (2008) investigated university students’ attitudes towards L1 mediation in FL classrooms. In this study, 52 learners of French (L2) completed a 21-item questionnaire that also included two open-ended questions. The analysis of the open-ended questions led to the identifications of two major functions for the L1: medium-oriented functions and framework-oriented functions. The former includes discussions relating to vocabulary and grammar. The latter includes classroom management function such as clarifications and instructions. The quantitative results from the questionnaire data suggest some disagreement between the participants such that a majority of the respondents indicated a preference for framework-oriented functions to be discussed via the target language. Finally, their results suggest that learners hold negative views towards L1 mediation because it creates a dependence on the L1, reduces the exposure to the target language, and may lead to unnecessary uses of the L1.

To increase ecological validity, others have included the perspective of both students and teachers. Mora Pablo, Lengeling, Zenil, Crawford, & Goodwin (2011) elicited teachers and students’ rationales for relying on L1 mediation in the FL classroom. They elicited perception data via a four-prompt questionnaire from 112 Spanish (L1) learners of French (L2) or English (L2). Similar to Rolin-Ianziti and Varshney (2008), they identified a vocabulary and grammar function of the L1 and task management. Moreover, Mora Pablo, et al., (2011) show that learners used the L1 for socializing purposes, namely, they turned to L1 mediation for off-task commentaries that were not oriented towards L2 development. Some strong negative beliefs about L1 mediation were also identified. In this context, some of the participants expressed the belief that using the L1 is illogical and useless. They conclude that the learners in this particular context viewed the L1 as a learning tool primarily for clarifying doubts.
Including the learner’s perspective is vital in order to understand when and why learners mediate the tasks via the L1. Also, as I mentioned earlier, tasks should be considered behavioral blueprints of the activity and what learners actually do during a task is guided by their personal objectives. As such, to explore a relationship between the learners’ action and the task, it is important to investigate how learners interpret the task goals, their own linguistic goals (e.g., fluency, accuracy, lexical expansion), and, importantly, their reasons for turning to the L1 and the L2 during learner-learner interaction. This information is critical in interpreting the data, as it can help explain the reasons and the amount of L1 and L2 mediation in L3 development.

2.7 Operationalization of key terms

In the present dissertation, I draw on a number of concepts from SCT. In addition to this, key concepts from the field of SLA and TALA have informed the focus and the design of the study. To facilitate the discussion, Table 1 presents a gloss of key terms that will be referred to throughout the dissertation.

<table>
<thead>
<tr>
<th>Terms</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency:</td>
<td>Learner agency is a social event that is mediated by our sociocultural histories. Agency includes awareness and accountability for one’s actions vis-à-vis the social context (van Lier, 2008).</td>
</tr>
<tr>
<td>Language mode:</td>
<td>Proposal that describes the degree of activation of individuals’ multiple languages (Grosjean, 2007).</td>
</tr>
<tr>
<td>Language-related episodes:</td>
<td>Part of a dialogue where students talk about language production, question language use, and correct linguistic errors (Swain &amp; Lapkin, 1998).</td>
</tr>
<tr>
<td>Languageing:</td>
<td>Cognitive and social activity that leads to the construction and shaping of linguistic knowledge, where language functions as a socially-constructed cognitive tool that mediates its own construction (Swain, 2006).</td>
</tr>
<tr>
<td>Mediation:</td>
<td>Creation of an indirect relationship between the mind and the world. Language can act as a cognitive and social tool that fosters the development of higher mental functions (i.e., language, attention, memory) by creating an indirect relationship between the mind and the world.</td>
</tr>
<tr>
<td>Multilinguals:</td>
<td>Individuals who are able to use more than two languages irrespective of proficiency in any one of the languages.</td>
</tr>
</tbody>
</table>
Table 1: Operationalization of key terms (continued)

<table>
<thead>
<tr>
<th>Terms</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychotypology</td>
<td>Term to refer to the language that is perceived as typologically closer to the target language.</td>
</tr>
<tr>
<td>Second language ‘L2’ transfer:</td>
<td>General tendency to transfer representations from L2(s) rather than L1 in L3 development.</td>
</tr>
<tr>
<td>Sociocultural theory:</td>
<td>Theoretical perspective proposed by Lev Vygotsky that examines the development of cognition and language. Development is viewed as a socially situated and informed activity that occurs in the social realm.</td>
</tr>
<tr>
<td>Tasks:</td>
<td>Holistic activity which engages language use in order to achieve non-linguistic outcomes while meeting a linguistic challenge (Samuda &amp; Bygate, 2008).</td>
</tr>
<tr>
<td>Third language (L3):</td>
<td>Term used to refers to the target language. It is thus possible for learners to have multiple L2s.</td>
</tr>
<tr>
<td>Third and additional language acquisition:</td>
<td>Term to refer to the field of study. Focus lies in the study of languages learned after the L2.</td>
</tr>
<tr>
<td>Zone of proximal development:</td>
<td>Distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined though problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978).</td>
</tr>
</tbody>
</table>

2.8 Research gap and questions

Although the study of L3 development is still recent, it is important to examine both social and cognitive dimensions that could impact the development of L3s. In the literature review, I identified an important gap such that most of the work in L3 development mirrors recent trends in SLA research. Also, the review of the literature highlights some of the key concepts of SCT (e.g., mediation and ZPD) and shows how language mediates our social activities and consequently our mental activities. One of the goals of this dissertation is to thus bridge this perceived gap between SCT and the study of language mediation in L3 development. To date, there is evidence of a complex interaction between language mediation and task type and learner proficiency. However, the relationship between task type and the mediating functions of language with learners of an L3 remains an underexplored area. Moreover, given the
perceived gap reporting on L3, the study explored task type effects on languaging and L3 development. Finally, few studies have examined the learners’ perspectives on language mediating in a FL classroom context. To this end, I draw on interview data to add to recent discourse that is reevaluating the role of the L1 in classroom contexts.

The design for the present study was guided by four interconnected goals: to (1) examine the mediating roles that the L1, L2, and L3 serve during collaborative tasks, (2) explore languaging during collaborative tasks, (3) establish potential links between languaging and L3 development, and (4) uncover learners’ beliefs about language mediation in FL classrooms. To explore these areas of interest, the following research questions were proposed:

RQ 1: What mediating functions do language(s) serve during four types of collaborative tasks, over time in an L3 classroom?

RQ 2: How does task type impact the occurrence and resolution of LREs in the L1, L2, and L3 by individual learners?

RQ 3: How do LREs lead to L3 development?

RQ 4: What are learners’ beliefs about using their languages during collaborative tasks?

The next chapter presents in detail the research design that guided the classroom-based empirical study. The discussion begins by presenting the setting, the participants, and the procedure that guided the present dissertation.
3 METHODOLOGY

3.1 Present study

In the literature review, I identified a number of gaps related to L3 development. Few studies have investigated the social and cognitive functions of the native and the nonnative languages on L3 development during task-based supported teaching. As such, the present study was conducted with learners of an L3 in a classroom-based setting in order to examine the specific functions of language during learner-learner interaction using a series of pedagogical tasks. In this chapter, I present the research methodology that guided the research. I introduce the context and the participants, the procedures and materials, and the data coding.

3.1.1 Setting

The study was conducted during the Spring 2011 semester at Universidad Multilingüal – a pseudonym – a medium-sized private university in central Mexico. In this context, learners are required to complete two English as a FL courses; however, a number of students who begin their studies at Universidad Multilingüal already meet the minimum English language requirement and are thus required to study two additional language courses as an L3 (e.g., French, German, Italian, or Japanese). In this context, there are six levels of French. The first four levels are structure-based courses and the latter two are content-based courses, namely, French language culture and Spanish-French translation. To determine learners’ French proficiency levels, departmental, in-house language proficiency examinations are implemented. These consist of a short oral interview with the French coordinator and a written essay.

For the study, data was collected in one intact FL French course, (i.e., ID 251) with Spanish (L1) - English (L2) speakers, learning French (L3). ID 251 is the third course in the
series of French courses. Following the Common European Framework of Reference for Languages (CEFR), ID 251 is an A2-B1 level, the equivalent to beginner-intermediate proficiency level. The data collection took place during regularly-scheduled class hours on Monday, Wednesday, and Friday, from 1:00-1:50 during a 16-week period.

During the Spring 2011, the French division of the Language Department adopted the textbook “Scénario 2: Méthode de Français” (Guilloux & Daill, 2008). Table 2 lists the themes and linguistic features presented in the course ID 251 which informed the design of the pedagogical tasks. Although the textbook promotes a communicative approach to language learning, in this context, learners were not accustomed to collaborative tasks. As a result, learners have had more experiences analyzing the language rather than using the language in meaningful interactions. Evidence of their inexperience comes from three sources: the department-mandated syllabus for the course, previous teaching/administrative functions at Universidad Multilingual, and two classroom observations.

At Universidad Multilingual, the French division relied on a structure-based syllabus. Each structure that was targeted formed the basis of the syllabus. Furthermore, during my previous experiences as language coordinator at Universidad Multilingual (2006), I conducted regular formative observations. In this capacity, I found that teacher-centered classrooms were the norm. In 2011, to provide some support to the claim that learners were less accustomed to tasks, I conducted two classroom observations. In my field notes, I documented that grammar-based, teacher-centered activities were predominant. For instance, during an 85-minute lesson, they completed 16 brief activities: 14 activities were taken from the book and 2 were retrieved from an on-line source. During these activities the teacher elicited responses from learners and
wrote errors on the board. I also observed that four learners tended to dominate the question-answer interactions. In sum, in this context, a teacher-centered approach appears to be the norm.

Table 2. *Overview of curriculum: Communicative, linguistic, and cultural goals*

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Communicative goals</th>
<th>Linguistic goals</th>
<th>Cultural goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4</td>
<td>Talking about apartments; Discussing rules; Giving advice</td>
<td>Relative pronouns; Present conditional; Imperfect past</td>
<td>Living with roommates Scholarships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vocabulary: Housing</td>
<td></td>
</tr>
<tr>
<td>5-6</td>
<td>Describing a place; Making, accepting, and refusing a proposition</td>
<td>Interrogative pronouns; Imperfect and present perfect; Suggestions : if + imperfect</td>
<td>Going out – Social life in Paris Reuniting with old friends</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vocabulary: Outings</td>
<td></td>
</tr>
<tr>
<td>7-8</td>
<td>Talking about self Explaining a recipe; Eating habits</td>
<td>Subjunctive mood; Quantity; gerunds Vocabulary: health and quantities</td>
<td>Junk food Self-image Eating habits Grocery shopping</td>
</tr>
<tr>
<td>9-10</td>
<td>Expressing exasperation; Reassuring; Giving an opinion</td>
<td>Possessive pronouns Passive voice Vocabulary: Technology</td>
<td>The press</td>
</tr>
</tbody>
</table>

3.1.2 Participants

Learners of L3s often experience unique learning trajectories. Therefore, finding a group of learners that shares similar linguistic experiences and backgrounds is often a challenge (Foote, 2009). At Universidad Multilingual, given the language requirements, all learners enrolled in ID 251 shared similar linguistic backgrounds: Spanish (L1) and English (L2). This was interesting for examining a complex phenomenon, namely L3 development.

In the case study tradition, the research focus is on a particular case within a real life context (van Lier, 2005; Yin, 2003). For the present study, I conducted a multiple case study with four focal participants who had some overlapping but unique language learning experiences. The inclusion of multiple contrastive cases has enabled me to provide in-depth portrayals of their experiences (Casanave, 2010; Duff, 2008) and to pay close attention to context.
with minimal disruption of the natural setting (Merriam, 1998). To recruit the four focal
participants, the 18 learners registered in ID 251 were invited to participate and a total of 17
learners agreed to participate by signing a consent form (Appendix A).

Due to the delicate nature of conducting a classroom-based study with my own learners, I
collected data from the 17 volunteer learners over the course of the semester. Ultimately, four
learners were selected as the focal participants for an in-depth analysis. The selection of the focal
participants was based on several factors: (1) experiences learning additional languages, (2)
proficiency in the L2, (3) proficiency in the L3, (4) study abroad experiences, and (5) quantity of
L1 use in the classes. Including learners with different language learning experiences and with
different learner characteristics has provided rich data regarding the process of learning an L3.
Next I introduce the focal participants (see Table 3 for a summary).

Table 3: Introduction of focal participants

<table>
<thead>
<tr>
<th></th>
<th>David</th>
<th>Felipe</th>
<th>Marta</th>
<th>Paco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>21</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Major</td>
<td>Modern languages</td>
<td>Engineer</td>
<td>International affairs</td>
<td>Psychology</td>
</tr>
<tr>
<td>Years of French study</td>
<td>4 years</td>
<td>2 years</td>
<td>1 year</td>
<td>1 year</td>
</tr>
<tr>
<td>French proficiency</td>
<td>8.2/10</td>
<td>7.4/10</td>
<td>5.7/10</td>
<td>4.7/10</td>
</tr>
<tr>
<td>Years of English study</td>
<td>15 years</td>
<td>15 years</td>
<td>15 years</td>
<td>9 years</td>
</tr>
<tr>
<td>English proficiency</td>
<td>Written 5-Oral 3+</td>
<td>Written 3+Oral 3-</td>
<td>Written 4-Oral 4</td>
<td>Written 4+Oral 4-</td>
</tr>
<tr>
<td>Years of study: other language</td>
<td>German: 1</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Japanese: 1½</td>
<td></td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Study abroad</td>
<td>No</td>
<td>1 year – U.S.</td>
<td>6 months – NZ</td>
<td>No</td>
</tr>
</tbody>
</table>

In the study, learners with different language learning experiences were included. For
instance, in this context, David\(^1\) had studied French, English, German, and Japanese. Second,

\(^1\) All names are pseudonyms.
variance in L2 proficiency was taken into account. Marta had the highest oral proficiency level in English and used it outside the classroom; David was taking a Spanish-English translation class; Paco reported reading in English every day but seldom speaking; Felip’s English skills were good but he seldom used English. Third, I included learners who demonstrated different proficiency levels and knowledge in different skill areas. For instance, David and Marta were highly analytical learners and Paco, although he was the least proficient and analytical, displayed some stronger auditory skills. Fourth, I selected participants with and without study abroad experiences: Marta and Felip had lived and studied abroad. And finally, based on my observations as the classroom teacher, I tried to include learners that used and did not use the L1 during task performance. Based on these characteristics, the variation within this relatively homogeneous context was maximized as to provide the backdrop to identify both deviant patterns and some commonality between the focal participants. Next, I introduce the four focal participants chosen for this multiple case study.

The first participant was David. David was an avid and motivated language learner. At the time of the study, David was fluent in Spanish (L1) and English (L2) and was studying French (L3) and German (L3), and had taken Japanese (L2²) courses. David started learning English at age six in a bilingual school. And based on oral and written proficiency exams, David was identified as an advanced learner of English. Using a modified version of the iBT TOEFL writing and oral rubric, he scored 5- on the written component and 4+ on the oral component. At the start of the semester, David was identified as being more proficient in French than his peers. Prior to studying at Universidad Multilingual, David had taken three years of French language study in high school and in the current context, was taking a second semester. In addition to

² Following Hammarberg (2001), L2 includes all languages learned after the L1 and are not currently studied.
French language classes, David was registered in two additional language courses: English for academic purposes and an intermediate level German course. During in-class activities, David spoke primarily in French and L1 use was limited. Finally, although David had multiple language related experiences, he had never studied or lived abroad.

Felip was a native Spanish speaker and was relatively strong in English (L2). Felip began learning English at the age of five but at the time of the study, he was only studying French. His English proficiency was 3+ on the written component and 4- on the oral component. As an infant, Felip and his family resided in Lyon, France, for one year, which may have impacted his attitudes towards French language culture and study. Also, prior to taking ID 251, Felip had studied French for two years at his Mexican high school. He described these courses as being teacher-centered and grammar-focused. Felip’s French level, relative to his peers, was strong. One of the remarkable traits of Felip was his use of Spanish: Felip seldom spoke Spanish inside the classroom. This behavior, as will be discussed in later chapters, may have been influenced by his study abroad experiences. At age 15, Felip studied at an American high school for one year. During his time there, he took language courses and content courses in English. In sum, in addition to being quite proficient in French, Felip demonstrated a good command of the English language.

Marta, the third focal participant, was also a proficient Spanish (L1) – English (L2) bilingual. French was her L3. Marta was a fluent English speaker. She began learning English at age five, used English in her community, and had studied in New Zealand for six months. In New Zealand, she received approximately 40 hours of language instruction per week. In 2006 she completed the Cambridge English and received the advanced certification. Her written English proficiency was 4- and her oral, one of the strongest of the group, was 5. Prior to her
French studies at Universidad Multilingual, Marta had taken private French lessons during a four week period at a private institution. Marta’s French language proficiency was less advanced than David and Felip. Although she struggled in the areas of oral comprehension, she had strong analytical skills and was highly dedicated and motivated. In the classroom, Marta relied more extensively on her L1 to communicate with her peers and with the teacher.

Paco, the fourth focal participant shared the same linguistic backgrounds as Marta and Felip. In English, Paco reported having 6 years of English language instruction. Although he admitted seldom speaking in English, he had advanced reading/writing skills. His written proficiency was 4+ and his oral proficiency was 5-. At the time of the study, Paco had studied French for three years – two years in high school and one year at Universidad Multilingual. In French, Paco demonstrated strong oral/aural skills; however, his writing and grammatical skills were much weaker. As such, assigning a global proficiency level is more problematic; nevertheless, Paco’ French proficiency level can be characterized as intermediate. In terms of L1 use, while Paco did have a good command of French (orally), his L1 use was found to be influenced by his peers and their language use during task completion. As such, the quantity of L1-L3 use in the classroom fluctuated between tasks. Finally, Paco had never lived or studied abroad.

Overall, these students were chosen because they represented a range of contrastive characteristics in a homogenous setting. In a first instance, differences in their French proficiency levels were identified: the learners, in decreasing order of proficiency, were David, Felip, Maria, and Paco. Also, two participants had studied abroad. This was hypothesized to impact their behaviors and their beliefs about language learning. Finally, the English proficiency levels were also divergent: Marta was the most experienced compared to Felip who seldom used
English and reported losing fluency in his L2. In sum, the focal participants represent a range of characteristics that mirror the general patterns in a typical classroom. In the next section, I discuss how my dual roles as teacher and researcher informed the process.

3.1.3 Researcher-teacher roles

One of the goals of this study was to work with four learners to closely examine how they approached the study of an additional language. To gain a deeper understanding of their experiences, I assumed a dual role: language teacher and researcher. As the teacher, I was able to maximize opportunities for learner-learner interaction without disrupting the natural flow of class, to familiarize learners with collaborative tasks, to modify tasks to meet the learners’ emerging needs, and to be in a position to permit L1, L2, and L3 mediation in the classroom.

To investigate L1, L2, and L3 mediation, learners must have multiple opportunities to participate in sustained interactions with their peers. For the course ID 251, the textbook that we used fosters a communicative approach. This textbook includes interactive activities with communicative goals (e.g., learn to listen to, react to, and reproduce interactive activities), with linguistic goals, (e.g., grammar, lexical, and phonetic), and with cultural goals (e.g., explore links between language and culture). Nonetheless, as mentioned in the previous section, the French division of the Language Department used a structure-based syllabus and learners were used to teacher-centered classes. Given my previous experiences working at Universidad Multilingüal, I was aware that teacher-centered classrooms were the norm. I conducted two classroom observations during the Spring 2011 semester where grammar-based, teacher-centered activities were predominant and confirmed that learners would have limited opportunities for sustained language exchanges in the classroom. To further probe my suspicions of teachers’ beliefs about communicative tasks, I offered the materials that were created for the study to the teacher from
the other section of ID 251. After politely refusing, the teacher explained that there was not enough time to cover the grammatical points and implement the tasks. This said, assuming the roles of teacher and researcher enabled me to implement numerous collaborative tasks and afford learners with multiple opportunities to work with the target linguistic structures via their L1, L2, or L3. Also, as the teacher and researcher, I was able to introduce the use of digital recorders in the classroom before the data collection process began in Week 5: during the first month of classes, several lessons were audio recorded. Incorporating technology at this early stage of the semester served to minimize the impact of technology on learners’ behaviors.

In this context, learners were not accustomed to participating in collaborative tasks and were not familiar with the target tasks. As a result, learners were less accustomed to being held accountable for their learning and to engage in sustained conversations with their peers. To familiarize learners with pedagogical tasks and to increase their levels of comfort, during the first four weeks of the semester, learners completed four target tasks: decision-making task, a story completion task, a text reconstruction task, and a dictogloss task. As the teacher, it became possible to familiarize learners with the format of the target tasks and the expectations of the oral and/or written components of the tasks. As a result of the pilot tasks and the ongoing data collection, I was able to make necessary modifications to subsequent tasks. Again, my dual roles interacted and facilitated the data collection process.

As a teacher, one of my beliefs is that I should interact with learners and provide them with feedback during learner-learner interaction. However, as a researcher, I wanted to provide the learners with the opportunity to engage with their peers to resolve language-related questions. The tension between my dual roles was resolved as follows: during the pedagogical tasks, I tried to minimize the number of instances where I initiated questions/interactions with the learners. I
made myself available to them by monitoring their interactions and answering questions. The instances where I initiated talk about language were not taken into account for the data analysis given that I was interested in how learners identified gaps in their interlanguage.

Finally, learners and teachers alike have strong beliefs about the use of a native language in the foreign language classroom. Specifically, the belief that learners can benefit from using languages beyond the target language in the FL classroom is not shared by all teachers (Cook, 2001; Turnbull & Dailey-O'Cain, 2009) and some teachers may prohibit the use of the L1 in the classroom. To ensure that learners would have the opportunity to mediate the language learning process through other languages, it was critical that the research be conducted in the classroom of a teacher who sees some of the potential benefits of L1, L2, and L3 use. Based on previous professional and personal experiences with language learning and teaching, I believe that learners should be allowed to turn to native and nonnative languages. In the present study, learners had the freedom to rely on their L1, L2, and/or L3.

As outlined above, several benefits for conducting research in my own classroom were identified; nevertheless, there were some potential threats for the learners and impacts on the learners’ beliefs as a result of conducting a classroom-based study in the capacity of teacher-researcher. A threat, for instance, is that learners could have felt obliged to participate in the study. For this reason, in designing the study, I took great care in developing tasks that constituted part of the course such that learners would not be able to discriminate between target and non-target tasks. For instance, posttests, while designed to measure language development, were introduced to the learners as a classroom activity. In addition to the careful design, learners were informed that recordings were not mandatory and they could, at any time, chose to complete the task without being recorded. Importantly, the learners in the classroom were
informed via writing that their decision to participate or withdraw would not impact their overall grade. An example of an impact on my learners is related to their beliefs, which may have been affected by participation in the study. Over the course of the semester, I interacted with my learners inside and outside the classroom. During the interview, the learners were asked a series of questions about their beliefs and impression. They also saw me during class and saw my teaching approaches and methodologies. Therefore, my participants knew some aspects of my beliefs about language learning and language teaching. This may have impacted their beliefs also.

3.2 Procedure and materials

There are numerous data elicitation methods and techniques to choose from when conducting case study research (Duff, 2008; Yin, 2003). In the present study, several sources of data were collected following a pre-determined timeline in order to closely examine the cognitive functions that learners’ language served during collaborative tasks including: (1) detailed transcripts of task-related discourse from pedagogical tasks and from posttests (oral prompt), (2) transcripts of individual interviews, (3) results from tailor-made posttests, (4) oral transcripts and written paragraphs of proficiency tests (French and English), and (5) researcher journal. Prior to describing each of these sources of data, the following section provides details of the overall data collection procedure, described in Table 4.

Learners were informed and invited to participate in the study during the third week of classes. During the fourth week, learners completed a language background questionnaire. In addition, learners completed a French language proficiency examination before the implementation of the first pedagogical task. The implementation of each pedagogical task and posttest followed the same sequence and was repeated four times over the study: Task A on
Wednesday → Task B on Friday → Posttest on Monday. The data collection began during the fifth week: learners completed the decision-making Task 1 on Wednesday and the story completion Task 1 on Friday. On the following Monday, learners completed the Individual Posttest 1 in the language laboratory. The rationale for completing the individual posttests on the following Monday was to provide me with enough time to create tailor-made test items that originated in the individual learner’s task performance data (refer to section Individual tailor-made posttests). After Posttest 1, learners participated in an individual interview. Nine days later, learners completed the text reconstruction Task 1 on Wednesday and the dictogloss task 1 on Friday. On the following Monday, learners completed Individual Posttest 2. Again, following the posttest, learners participated in a second individual interview. Immediately following the completion of the first series of pedagogical tasks, departmental examinations were implemented. The implementation of the second series of pedagogical tasks began week 11 and ended at the start of week 14. The second series followed the same pattern: pedagogical task 1 on Wednesday, pedagogical task 2 on Friday, posttest on Monday and individual interviews on Monday (after the posttest).
<table>
<thead>
<tr>
<th>Weeks 1-4</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pilot materials</td>
<td></td>
<td></td>
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<tr>
<td>Week 4 – Jan 31st</td>
<td></td>
<td>Language background questionnaire</td>
<td>In-class French proficiency – written component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 5 – Feb 7th</td>
<td>French proficiency – oral component (office hours)</td>
<td>Task #1: Decision-making task #1</td>
<td>Task #2: Story completion Task #1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 6 – Feb 14th</td>
<td>Posttest #1</td>
<td>Interview</td>
<td>Interview</td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>Week 7– Feb 21st</td>
<td>Interview: Tasks 1 &amp; 2</td>
<td>Tasks 1 &amp; 2</td>
<td>Tasks 1 &amp; 2</td>
<td>Task #3: Text reconstruction #1</td>
<td>Task #4: Dictogloss task #1</td>
</tr>
<tr>
<td>Week 8 – Feb 28th</td>
<td>Posttest #2</td>
<td>Interview</td>
<td>Interview</td>
<td>Departmental Examinations (written and oral component)</td>
<td></td>
</tr>
<tr>
<td>Weeks 9-10</td>
<td></td>
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<tr>
<td>Week 11 – March 21st</td>
<td></td>
<td>Task #5: Decision-making task #2</td>
<td>Task #6: Story completion task #2</td>
<td></td>
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<tr>
<td>Week 12 – March 28th</td>
<td>Posttest #3</td>
<td>Interview</td>
<td>Interview</td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>Week 13 – April 4th</td>
<td>Interview: Tasks 5 &amp; 6</td>
<td>Tasks 5 &amp; 6</td>
<td>Task #7: Text reconstruction #2</td>
<td>Task #8: Dictogloss #2</td>
<td></td>
</tr>
<tr>
<td>Week 14 – April 11th</td>
<td>Posttest #4</td>
<td>Interview – Tasks 7 &amp; 8</td>
<td>English proficiency written and oral component (office hours)</td>
<td></td>
<td></td>
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<tr>
<td>Week 15 – April 18th</td>
<td>Interview: Tasks 7 &amp; 8</td>
<td>English proficiency written and oral component (office hours)</td>
<td>Holy Week</td>
<td></td>
<td></td>
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<tr>
<td>Week 16 – April 25th</td>
<td>Review</td>
<td>Final exam – oral component</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Week 17 – May 2nd</td>
<td></td>
<td>Final exam – written component</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2.1 Pedagogical tasks

There is growing empirical evidence that task features and task implementation impact the quality and quantity of collaboration between interlocutors (Bygate, 2001; Ellis, 2003; Kim & McDonough, 2011; Long, 1981; Samuda & Bygate, 2008; Varonis & Gass, 1985). As such, in designing the materials, several task features shown to impact collaboration were taken into consideration including the following: (1) familiarity of topics, (2) information gap (e.g., one-way/two-way tasks); (3) obligatory exchange of information; (4) task outcome (e.g., open/closed tasks); and (5) cognitive complexity (e.g., contextual support, the amount of information that must be processed simultaneously) (Ellis, 2003). The following section provides a description of the task features for the decision-making task, the story completion task, the text reconstruction task, and the dictogloss task, summarized in Table 5. Nonetheless, while controlling task features is a desirable outcome, it is expected that the learners will differ in their approach to the tasks. Therefore, results will be interpreted in light of both task features and learners’ personal, idiosyncratic understandings of each task (Coughlan & Duff, 1994).

The first type of task, a decision-making task, is a two-way information gap task (Doughty & Pica, 1986; Kim & McDonough, 2011) (Appendix B). The overall goals of the decision-making tasks in this study were three-fold: (1) elicit information pertaining to the apartments or countries from the peer by asking a series of questions, (2) select one of the options (Kim, 2010), and (3) write a short paragraph to motivate the final selection. To encourage learner-learner interaction, the topics were in line with the topics presented in the textbook. For instance, the topic of the first decision-making task was “Finding an Apartment”: lessons three and four focused on vocabulary to describe apartments, apartment life, and rules for living with a roommate. Target structures included, for example, comparison, the past tense, and
the present conditional. Similarly, the topic for the second decision-making task was “Health Practices around the World”: lessons seven and eight focused on talking about health practices, self-image, and cooking. Target structures included subjunctive mood, definite/indefinite quantities. In other words, learners were working with topics and structures that formed the curriculum and learners were thus familiar with the content. In a two-way information gap task, each learner has half of the information. They are obliged to exchange information. Specifically, during this first two-way task, each learner elicited the complete information of her/his peers’ three apartments (ultimately comparing six apartments). During the second two-way task, each learner had half of the information for six countries (each learner had half of one country’s information) and learners were instructed to exchange information about four of the six countries of their choice. During a decision-making task, an open-task, there are multiple solutions or outcomes. Each dyad can select a different apartment and country. Research suggests that open tasks can potentially limit negotiation between learners given that, when faced with unfamiliar ideas or linguistic structures, learners have agency in choosing to discuss or abandon a task-related linguistic aspect (Ellis, 2003; van Lier, 2008). During the oral and written components, learners had some contextual support (written text and visual input) which induces more negotiation between learners in the target language (Storch & Aldosari, 2010; Swain & Lapkin, 2001). Learners were asked to complete several simultaneous tasks: exchange information, evaluate information, and reach an agreement on one apartment/country by the end of the oral component (Gass & Mackey, 2007a). Selection of the best apartment was based on location, costs, and nearby amenities and selection of the best country was based on culinary practices, health habits, and the countries’ uniqueness relative to the other countries and their own experiences in Mexico.
The second type of task, story completion task, is also a two-way information gap task (Ellis, 2003; Storch & Aldosari, 2010; Swain & Lapkin, 1998, 2000, 2001, 2002). The overall goal was to reconstruct collaboratively a story based on a series of images that are not visible to her/his peer. During this task, each learner worked with half of the images and in order to reconstruct the story, learners were required to elicit a description of the images by asking a series of questions and determine the sequence of the images without showing their own images to their peer. After confirming the sequence, learners could show their images. The oral component was followed by a written component: learners were instructed to write a narrative of approximately 100 words at Time 1 and 200 words at Time 2. In the present study, each story completion task had a topic that was related to the topic of the decision-making tasks. The topic for the first story completion, “Living with a Roommate”, was also informed by lessons three and four (e.g., apartment life) and the topic for the second story completion, “Julie’s Eating Habits”, was informed by lessons seven and eight (health and eating habits). The two-way task included an obligatory exchange of information component. In the first story completion task, each learner had a set of four images and in the second task, each learner had a set of three images. The decision to reduce the number of images at Time 2 was informed by my learners’ performance and impressions of the task at Time 1. The story completion, a closed-task, requires learners to reach an agreed-upon solution. This may lead to more negotiation because there is only one possible solution (Ellis, 2003). This task was considered to be cognitively challenging because the learners had limited contextual support: learners did not have written input and they had to work with their peers’ oral input (refer to Table 5 below for summary of task features).

The third task was a text reconstruction task (Storch & Aldosari, 2010; Storch & Wigglesworth, 2003). The overall goal was to reconstruct a passage which included lexical and
grammatical omissions. To reconstruct the passage, learners worked collaboratively on a 160-word passage that contained 40 omissions. In the present study, each text reconstruction task had a unique topic. Similar to the other tasks, the topics were in line with those presented in the textbook. For instance, the topic of the first text reconstruction task was “Unfamiliar Places in Puebla”: lessons five and six focused on vocabulary to describe hobbies/free-time, describing places, and accepting invitations. Target structures included, for example, question formation, simple past, and perfect past. Similarly, the topic for the second text reconstruction task was “Technology-Related Problems”: lessons nine and focused on technology, expressing despair, and music websites. Target structures included passive voice, subjunctive mood, and superlatives. Learners worked with topics and structures that were familiar. The task was divided into two parts: reconstruction phase (~25 minutes) and the comparing phase (~10 minutes). For the reconstruction phase, learners were instructed to (1) determine the gaps in the text and (2) provide a possible resolution. During the comparing/noticing phase, learners received a corrected version of the passage and their task was (1) to compare their collaborative, reconstructed versions with a complete transcript and (2) explain the differences between the two versions. For this task, there was no obligatory exchange of information. Rather, learners worked collaboratively on the same text. The text reconstruction task was an open task. Although learners were provided with a correct transcript, the transcript provided a guideline as multiple options were often possible. Finally, the text reconstruction task was considered less cognitively challenging as learners were engaged in one activity: identify linguistic gaps. This task provided learners with large amounts of written input (refer to Table 5 below for summary of task features).
The fourth task type was the dictogloss task (Kim & McDonough, 2008; Leeser, 2004; Swain & Lapkin, 2001, 2002; Wajnryb, 1990). The overall goal was to reconstruct a 135 word passage that was delivered aurally. The task was divided into three parts: individual reconstruction phase, collaborative reconstruction phase (~15 minutes at Time 1 and ~22 at Time 2) and the comparing phase (~8 minutes at Time 1 and ~15 minutes at Time 2). First, learners worked individually on recreating an aural passage. The recording was played twice and was stopped after each sentence for three seconds. Second, learners pooled their information and created a single text. And third, learners heard the recording a third time and were given three minutes to make necessary modifications. During the second component of the task, the comparing component, learners were instructed to compare their version with the transcript of the recording, correct the differences, and explain the observed differences. This task is initially a one-way task because, as the teacher, I have all the information and it becomes a two-way task because after the listening component, learners have the information. At this point, the information is split between the two learners and their task is to reconstruct the passage. Each dictogloss had a unique topic that was related to the topics of the text reconstruction task. The topic for the first dictogloss, “Making Plans in a New City”, was informed by lessons five and six and the topic, “Illegal Music Download Sites”, was informed by lessons nine and ten. The dictogloss had obligatory exchange of information; however, the exchange was based on the individual learners’ reconstructed text which may have been incomplete. As such, differences between the dyads were observed: exchange of information was less salient in some dyads. The dictogloss is, in theory, a closed-task with one possible solution; however, recreating the meaning was primary and ultimately, learners could arrive at unique structures to recreate the intended meaning. The dictogloss is less complex than the decision-making task and the story
completion task because learners had a single task, (i.e., reconstruct the passage). However, successful completion of the dictogloss task relied on learners’ ability to comprehend the information provided aurally. This task was considered to be cognitively challenging because learners had limited contextual support compared to the text reconstruction (refer to Table 5 below for summary of task features).

In review, four types of tasks were chosen. Table 5 summarizes the major features of these tasks. The rationale for including these tasks was related primarily to the nature of the input and of the output. Both the input and the output were features that could be manipulated a priori. The nature of the input was different for each of these tasks: visual and written combined (decision-making task), visual input alone (story completion task), written input alone (text reconstruction task), and aural input alone (dictogloss task). In terms of output, opportunities for written output were provided, although the outcome was less constrained for the decision-making tasks and the story completion tasks and was highly constrained for the text reconstruction tasks and the dictogloss tasks. The other variables, although can be specified, are subject to learner agency and the individual participants’ interpretation of these features. In review, although the goal of the study was not to control variables, having some stable features to draw some conclusion was important. Thus, several types of tasks with diverging and converging features were included.

Finally, an additional important aspect of this study is that it was conducted in an intact class over the course of an entire academic semester. From a pedagogical stance, this increases the ecological validity of the study (van Lier, 2010). From a theoretical stance, the inclusion of several types of tasks allows for an examination of the impact of task types on language learning behaviors and outcome.
Table 5: *Task features*

<table>
<thead>
<tr>
<th></th>
<th>Decision-making task</th>
<th>Story completion task</th>
<th>Text reconstruction task</th>
<th>Dictogloss task</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
<td>Exchange of information and selection of one option</td>
<td>Exchange of information and sequencing of images</td>
<td>Reconstruct a passage</td>
<td>Reconstruct a passage</td>
</tr>
<tr>
<td><strong>Information exchange</strong></td>
<td>Obligatory exchange</td>
<td>Obligatory exchange</td>
<td>N/A</td>
<td>Obligatory exchange (dependent on individual aural reconstruction)</td>
</tr>
<tr>
<td><strong>Input mode</strong></td>
<td>Visual (pictures) and written</td>
<td>Visual</td>
<td>Written input</td>
<td>Aural</td>
</tr>
<tr>
<td><strong>Output mode</strong></td>
<td>Oral and written</td>
<td>Oral and written</td>
<td>Written</td>
<td>Written</td>
</tr>
<tr>
<td><strong>Conditions</strong></td>
<td>Split information</td>
<td>Split information</td>
<td>N/A</td>
<td>Split information (dependent on individual aural reconstruction)</td>
</tr>
<tr>
<td><strong>Information gap</strong></td>
<td>Two-way task</td>
<td>Two-way task</td>
<td>One-way task</td>
<td>One-way task followed by two-way task</td>
</tr>
<tr>
<td><strong>Familiarity with topic</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Task outcome</strong></td>
<td>Open task</td>
<td>Closed task</td>
<td>Closed task (Some possibility for other outcomes)</td>
<td>Closed task (Some possibility for other outcomes)</td>
</tr>
<tr>
<td><strong>Complexity variables</strong></td>
<td>Exchange, evaluate, and select information</td>
<td>Exchange and sequence information</td>
<td>Linguistic analysis</td>
<td>Reconstruct – meaning and form</td>
</tr>
</tbody>
</table>
3.2.2 Posttests

In this study, language development was measured via the use of both individual tailor-made posttests and individual recordings. The individual tailor-made posttests included a paper and pencil task delivered via Powerpoint. The individual recording consisted of four oral prompts. For the paper and pencil task, language development was operationalized as follows: a correct response for multiple-choice items that were based on a lexis-based LRE or a form-based LRE. For the oral task, language development was operationalized as follows: (1) the accurate use of a lexical item during the spontaneous recording that originated in a lexis-based LRE in the preceding tasks, (2) the accurate use of a grammatical structure that originated in a form-based LRE in the preceding tasks.

As detailed in Table 4, learners completed the posttest on the Monday following the completion of two pedagogical tasks (Wednesday and Friday). The posttest activities took place in the language laboratory, a large computer room equipped with 30 individual work stations, microphones, and recording software. To measure language development, researchers often employ a pretest, posttest, delayed-posttest design. Gains between pretest and posttests are taken as evidence of language development. However, one of the limitations of a pre-post-delayed posttest design is that items are created a priori making it more difficult to determine the relationship between task performance and language development. From an SCT perspective, the production of language (e.g., LREs) between learners modifies cognition (e.g., L3 development). It follows that languaging is an important mechanism for internalization (Swain, et al., 2011). In order to establish a more direct link between LREs initiated by the learners during learner-learner interaction, the development of individual tailor-made posttest items can help identify development in the microgenetic domain. Thus, following the completion of each pedagogical
task, I developed individual tailor-made posttest items that were based on LREs produced by each learner. In order to identify LREs, I listened to the audio-recordings for each dyad in the days following their recordings and I identified some LREs. After having identified the LREs for each task, I created posttest items. Drawing on the work of Swain and Lapkin (1998, 2001), I created items that targeted both lexis and grammar. Items were presented using powerpoint. In Example 1, learners produced a form-based LRE. Example 2 provides the corresponding posttest items.

Example 1: *Form-based LREs produced during the task*

1 Thomas : L’écran a* devenu  
[The screen has* become]
2 Marta : A* devenu rouge  
[Has* become red]
3 Thomas : Rouge  
[Red]
4 Marta : Devenir ¿No va con être cuando es passé composé?  
[To become *doesn’t it go with to be when it’s in the simple past?]
5 Thomas: Oui, je crois.  
[Yes, I think so.]
6 Marta: Sí, ¿no?  
[Yes, right?]  
7 Thomas: Et l’écran est devenu  
[And the screen has become]

Example 2: *Item from the posttest*

8 L’ écran _____ devenu bleu.  
[The screen _____ become blue.]
   a. est [is]  
   b. a [has]  
   c. lui [him]  
   d. mon [mine]

It was originally conceived that each learner would complete a posttest with only items that originated in their own interactions; however, this was not optimal for this classroom-based study given that each learner had a different number of total items due to the variations of LREs
produced during the interactions. Therefore, several versions of the posttests were created for each posttest and varied over the course of the semester. In class, learners were assigned to the posttests that included their own relevant items. For the first posttest, a total of five versions of the posttests were created with 61 items each. For the second posttest a single version was created with a total of 91 items. For the third posttest, a total of six versions were created with 60-73 items. And finally, for the fourth posttest, a single version was created with 112 items. As a result, the posttests contained some items that did not originate in one student’s interactions. The reason for creating a unified version for the second and fourth posttest is that a number of items were similar due to the controlled nature of the task. To measure L3 development, I only analyzed LREs produced by one learner in relation to hers or his performance on the posttest items. Items that did not originate in their dyads were not considered for analysis.

The oral task comprised four individual recordings, each lasting two and a half minutes. For the first recording, learners produced an individual recording that directly corresponded to the topic of the first task of the series (i.e., the decision-making task or the text reconstruction). For the second recording, learners produced an individual recording that directly corresponded to the topic of the second task of the series (i.e., the story completion or the dictogloss). For the third and fourth recording, learners were asked to create a total of ten questions (five for each task). To target language development with the oral component, each oral prompt was directly related to the topic of the tasks. For instance, during the first decision-making task, learners exchanged information about apartments and selected one apartment. This task promoted the use of vocabulary related to housing (e.g., location, furniture, cost) and related to question formation. During the text reconstruction, learners focused on a text that talked about planning a visit to a famous city. This task promoted language related to tourism and locations; however, this task did
not target question formation directly. Nonetheless, the third oral prompt (questions) was included in order to keep the same test format (a pedagogical decision). The relationship between the topics for the oral production posttest and the pedagogical tasks are detailed in Table 6.

<table>
<thead>
<tr>
<th>Prompt</th>
<th>Oral prompts</th>
<th>Questions</th>
<th>Relation to tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest 1</td>
<td>1</td>
<td>Describe the best apartment</td>
<td>Five questions about your apartment</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Discuss your worst experience living with a roommate</td>
<td>Five questions about having a roommate</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Discuss what you did last week-ends activity</td>
<td>Five questions about your last week ends</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Discuss activities with your best friend</td>
<td>Five questions about how you met your friend</td>
</tr>
<tr>
<td>Posttest 2</td>
<td>5</td>
<td>Discuss Mexican health practices and habits</td>
<td>Five questions that your nutritionist could ask you</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Present your high school eating habits</td>
<td>Five questions that your nutritionist could ask you</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Discuss problems with your computer</td>
<td>Five questions that a technician could ask you</td>
</tr>
<tr>
<td>Posttest 4</td>
<td>8</td>
<td>Describe your favorite computer and computer sites</td>
<td>Five questions that a friend could ask you about computers</td>
</tr>
</tbody>
</table>

3.2.3 Pilot

Prior to the implementation of the target pedagogical tasks, the materials were carefully piloted. During the first four weeks of the semester, I recruited French language learners from the other section of ID 251, learners from the more advanced level (ID 351), and volunteer learners from an informal conversation group to pilot the materials. The sessions were audio
recorded and each learner was interviewed to elicit their perceptions on content relevance/difficulty and clarity of instructions/designs. Based on the results from the pilot, several changes were made to the original designs. In their final format, the decision-making task included more elaborate written input. The story completion task was expanded to include eight images during story completion one; however, for the second story completion task, I reverted back to the inclusion of six images. The text reconstruction did not include spelling errors – learners believed this to be confusing and likely to lead to erroneous learning. As such, only grammatical and lexical omissions were included. Furthermore, the length of the text was increased from 65 words to 165 words. Finally, the length of the dictogloss task was increased and the speed of the recording was considered: the slower recording was selected. In sum, the pilot phase conducted in situ was necessary and beneficial.

3.2.4 Language proficiency test

Teachers often observe proficiency differences among learners within a single classroom. Proficiency differences between learners have been shown to impact collaboration, languaging, and language development (e.g., Kim & McDonough, 2008; Watanabe & Swain, 2007; Yule & Macdonald, 1990). In this study, each learner’s French proficiency level was formally assessed on two occasions during the semester. The rationale for evaluating their proficiency in French twice during the study was because it was hypothesized that some learners would advance more rapidly over the course of the semester due to individual differences and the amount of input. At the end of the semester, the learner’s English language proficiency was also measured. I chose to evaluate the English language proficiency only once because significant changes in English proficiencies were not expected.
Learners’ French proficiency levels were measured using a modified version of the Diploma in French Studies (DELF) examinations (Council of Europe, 2011). The DELF certification consists of four independent diplomas each corresponding to the first four levels of the Common European Framework of Reference for Languages, (i.e., A1, A2, B1, and B2). Given that the level of the course in the present study was A2 leading into B1, original questions from sample tests corresponding to levels A2 and B1 were adapted. Proficiency was assessed using the written and the oral sections of the DELF. The first oral proficiency test was administered during the fourth week of the semester and the second was administered during the eighth week of the semester, at midterm point. The speaking component of the test was carried out during office hours, was audio-recorded, and lasted 15 minutes. Learners participated in four speaking tasks: (1) introducing themselves to the examiner (monologue), (2) engaging in a dialogue about completing a documentary, (3) discussing their current living situation (dialogue format), and finally, (4) giving advice to a friend (monologue) (Appendix C). The written component of the first proficiency test was completed in class and lasted 40 minutes. Learners were required to write two texts: (1) a short email to a friend in order to recommend a travel destination and (2) a short paragraph detailing what they would do if they won the lottery. The oral component of the second proficiency task was a modified version of the departmental midterm evaluation. The second proficiency test also included a written and an oral component. The written component was completed during regularly scheduled class hours and included the following topics: (1) refusing a friends’ proposal for a social outing and (2) writing about their first home (childhood memories). The topics for the second oral component were the following: (1) establishing rules for living with a roommate (dialogue), (2) engaging in a dialogue about completing a documentary, (3) describing their first apartment (monologue), and (4) talking
about new forms of technology. While the two proficiency tests were not identical, each learner completed the same versions, which provided an accurate measure of their levels of proficiency at Time 1 and at Time 2, respectively.

The oral and the written components were rated by a second French teacher and myself following the rubric provided by Centre International d'Etude Pédagogiques (CIEP). The rubric included the following categories: (1) ability to relate simple aspects about current and past events, (2) ability to give personal impressions/opinions, (3) lexical and grammatical accuracy, and (4) morpho-syntactic accuracy. The maximum score on the written component was 12 points and on the oral component was 16 points. Each rater independently coded the focal participants’ two written products and two oral recordings using the CIEP rubric. Agreement was reached with one exception: Felip’s written narrative at Time 1 was assigned a higher rating by the second rater. After discussing the discrepancies, a final consensus was reached. A final comprehensive score was tabulated on a scale of 10 points. The final ranking of the focal participants was David (8.2/10), Felip (7.4/10), Marta (5.7/10), and Paco (4.7/10).

Learners’ English proficiency was measured at the end of the semester (Appendix D). The oral and written components were completed during my office hours. The topics were based on TOEFL materials readily available online. The oral task included three components: (1) background information about English language experiences (2 minutes), (2) expressing a point of view about the teachers’ roles in education (3 minutes), and (3) expressing a point of view about attendance at the college level. For the written task, in approximately 80-100 words, the participants were asked to respond to the prompt: Parents should make important decisions for their older (15 to 18 year-old) teenage children. They were given 15 minutes to respond.
The oral and written components were rated holistically by a second English teacher and myself. Consensus was reached for each of the four participants. The global scores for Marta, David, and Paco were very similar. Felip was slightly less proficient than his peers.

3.2.5 Interviews

Interviews are considered to be one of the most important sources of case study information (Yin, 2003). According to Rubin and Rubin (2005) “qualitative interviews are conversations in which a researcher gently guides a conversational partner in an extended discussion….in qualitative interviews each conversation is unique, as researchers match their questions to what each interviewee knows and is willing to share” (p. 4). At the start of the study, I set out to interview the four focal participants four times, eliciting behavioral and attitudinal data (Gass & Mackey, 2007a). As previously discussed, 17 learners agreed to participate in the study and therefore I interviewed each learner three-four times over the course of the semester. Interviews took place after the completion of the posttests. The first three interviews lasted on average 30 minutes. During these initial interviews, my dual roles impacted the amount of follow-up questions about language mediation. The fourth and final interview lasted between 45-60 minutes (Appendix E). The interview questions examined their beliefs about language use and their perception regarding the tasks, the level of difficulty, and their peers. During the fourth and final interviews, learners were also asked a series of hypothetical questions regarding their beliefs about when and why to use other languages in the classrooms. At this time, although I was able to ask more questions about language mediation, the fact that I was the participants’ teacher could have impacted the veracity of their answers. The interviews were guided by general questions that functioned as guidelines; however, these interviews varied from learner to learner based on their ideas and questions.
3.2.6 Language background questionnaire

Factual information was collected via a questionnaire (Appendix F). Factual data includes information about the participants’ age and language learning experiences. All learners were required to complete the language background questionnaire during the fourth week of classes at home and return it during the subsequent class. All learners save one completed the form.

3.2.7 Research journal

In the present study, I assumed a dual role: language teacher and researcher. To document ideas and insights that emerged throughout the data collection process, I kept a research journal. After each class, I wrote from both the researcher and teacher perspective. In the researcher role, entries related to tensions and conundrums, changes or modifications in the data collection process, and initial observations about the tasks, the learners, pairing strategies, and language mediation (Altrichter & Holly, 2005; Richards, 2005). In the teacher role, entries focused on the daily lesson, future lesson plans, and classroom management.

3.3 Data coding

In the present classroom-based study, three types of recordings were collected: (1) learner-learner interactions during the pedagogical tasks, (2) individual posttest prompts, and (3) interview data. The audio recordings from the pedagogical tasks were transcribed in two phases. During the first phase, recordings were transcribed verbatim by the researcher and a hired assistant. In the second phase, the recordings were compared to the learners’ written products to capture differences between the oral and the written products. This second phase was conducted by the researcher only. Transcribing the oral discourse with the written texts enabled me to identify the specific mediating functions (differences between reading the texts and producing original language) and to examine the resolution of LREs: a necessary stage for coding the
outcomes of LREs (correctly resolved, incorrectly resolved, and unresolved). The interviews and oral posttests were transcribed verbatim.

Following the transcription stage, the various sources of data were coded. Next, I introduce the coding schemes for the mediating functions, for languaging, for language development, and for learners’ perceptions.

### 3.3.1 Mediating functions

The first stages of the coding process consisted of identifying the quantity of L1, L2, and L3 use and the mediating functions of learners’ L1, L2, and L3 during the interactions. In this study, the unit of analysis was the turn. Following Foster, Tonkyn, & Wigglesworth (2000), a turn included “everything except untranscribable data” (p.370). In other words, one-word utterances were counted as a turn given that these markers served to reinforce what a peer was saying. Each turn was coded in terms of language pattern and function. In previous studies, each turn was assigned a primary function (Storch & Aldosari, 2010); however, in the present study, it became evident that some turns consisted of more than one clear function. As such, multiple functions were assigned in any given turn in order to capture the functions in relation to language use.

The first dimension of the data coding process focused on the use of the L1, the L2, and the L3. Each turn was coded for language pattern. In total, five language categories were established: L1-monolingual, and L1-bilingual, L2 +L1/L3-bilingual, L3-monolingual, L3-bilingual. The first category, L1-monolingual, includes turns produced in Spanish only. The second category, L1-bilingual, includes turns produced predominantly in Spanish with some evidence of code-switching to French. The third category includes turns produced in French or Spanish with some evidence of English. The fourth category, L3-monolingual, includes turns
produced in French only. The last category, L3-bilingual, includes turns produced predominantly in French with some evidence of code-switching to Spanish. The rationale for including a monolingual category (French or Spanish) and a bilingual category (French dominant and Spanish dominant) was to capture differences between learners who could maintain the entire conversation in the target language.

The preliminary codes for the mediating functions were based on Storch and Aldosari (2010). In light of the tasks, the codes were revised and expanded to include the following: (1) grammar deliberation, (2) vocabulary deliberation, (3) eliciting information from peer, (4) noticing/comparing, (5) clarification request, (6) task management deliberation, (7) evaluating information (8) generating ideas, (9) meaning deliberation, (10) explanation, and (11) reading. The following discussion will thus describe each category in detail and also provide some examples of each code. For each category, I provide the theme and the codes that made the theme followed by a loose translation.

The first category, grammar deliberation, includes turns where learners questioned or resolved aspects of the grammatical system (Table 7). (For each example, a literal translation is provided below). The grammar deliberation category includes instances where learners talked about subject-verb agreement, auxiliary, indirect and direct pronouns, and gender/number.
Table 7: Grammar deliberation codes

<table>
<thead>
<tr>
<th>Instances</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreement</td>
<td>C’est mit –t c’est avec –t ou sans –t⁴. [It’s put –t with –t or without –t].</td>
</tr>
<tr>
<td>Auxiliary</td>
<td>Devenir no va con être cuando es passé composé? [To become doesn’t it go with to be when it’s the simple past?]</td>
</tr>
<tr>
<td>In-direct object</td>
<td>Cette place Isabelle l’a adoré? O lui a adore* [This place Isabelle loved it or loved him*]</td>
</tr>
</tbody>
</table>
| Number/Gender | Les pages internet que j’explore, ¡Así, con –s? [The internet sites that I explore, like this, with –s?]

The second category, vocabulary deliberation, includes turns where the learners talked about non-grammar related spelling, pronunciation, meaning, and alternative ways of expressing an idea, illustrated in Table 8.

Table 8: Vocabulary deliberation codes

<table>
<thead>
<tr>
<th>Instances</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spelling</td>
<td>No con –t opt-ion. [No, with –t, opt-ion]</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Combien de bain o bain, no se baño [How many baths or baths, I don’t know bathrooms].</td>
</tr>
<tr>
<td>Meaning</td>
<td>Qu’est-ce que c’est le coûte? [What is the cost?]</td>
</tr>
<tr>
<td>Translations</td>
<td>¿Ah cómo se s’appelle aceitunas? [Ah, how are they called olives?].</td>
</tr>
</tbody>
</table>

The third category, generating ideas, includes turns where learners were exchanging information (decision-making task) and creating new ideas orally or in the written forms (story completion). For instance, in this example David is making suggestions for the composition:

«Attend on peut dire. Quand j’ai quand j’ai quand j’ai vu l’appartement » [Hold on, we can say when I, when I, when I saw the apartment].

The fourth category, eliciting information from peer, includes turns where the learners ask a specific, content related question and instances where learners elicit their peers’ opinion.

³ French turns and words are in TNR; Spanish turns and words are italicized; English turns and words produced are bolded; German turns and words are underlined
⁴ French data represents learners’ spelling – errors were not corrected. Errors that are discussed are marked with a (*). English translations do not reflect spelling errors.
This category emerged from the data and is most salient in the decision-making task and the story completion. In completing the activities, learners were encouraged to formulate questions to make the process of combining information more dynamic. For instance, in helping the decision-making process, David asked his peer: “Quel pays crois tu que c’est le plus original dans son son e.. pratique alimentaires e… et aussi avec…?” [Which country do you think is more original in its… eating customs… and also with…?]. This category tended to be followed by generating ideas.

The fifth category, evaluation of information, includes turns where learners evaluate the information provided in the task or real world information, but for the purpose of the tasks. This particular function overlaps with the previous category in that learners are generating ideas; however, the ideas were evaluative in nature. This category was relevant primarily during the decision-making task where learners had to select an apartment or country based on several features. As such, several turns were observed where learners evaluated and compared information provided to them. For example, while comparing France and Italy, Felip says: “C’est moins que les français” [It’s less than the French].

The sixth category ‘noticing/comparing’ includes turns where learners are in the process of identifying discrepancies between two versions of a text. This category emerged during the second phases of the text reconstruction tasks and the dictogloss tasks where learners used a corrected transcript of the text to identify errors. The task of noticing/comparing differences between two texts requires learners to read the content of one version (aloud or subvocally). This was mostly done in French. For instance, in this example Marta is reading the corrected version and comments briefly on the accuracy of the correction: “J’aimerais, bien, répondiez à quelques, argh…” [I would like, good, answer to some, argh…]. This function differs from grammar
deliberation in that learners do not explicitly discuss aspect of grammar but are first trying to notice differences, e.g. *bien*. Following a noticing/comparing turn, sometimes learners addressed grammar, but at times, they simply continued noticing/comparing and did not address the gaps. as in Table 9:

<table>
<thead>
<tr>
<th>Learner</th>
<th>Turn</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marta:</td>
<td>Impatiente elle Impatient, she</td>
<td>noticing/comparing</td>
</tr>
<tr>
<td>Thomas:</td>
<td>Lui a répondu Responded to him</td>
<td>noticing/comparing</td>
</tr>
<tr>
<td>Marta:</td>
<td>Lui a répondu argh Responded to him</td>
<td>noticing/comparing</td>
</tr>
<tr>
<td>Thomas:</td>
<td>Elle lui a répondu She responded to him</td>
<td>noticing/comparing</td>
</tr>
<tr>
<td>Marta:</td>
<td>Se nos fue el rollo <em>We didn’t notice it</em></td>
<td>task management</td>
</tr>
<tr>
<td>Thomas:</td>
<td>Respondió merci mais… Answered thank you but</td>
<td>noticing/comparing</td>
</tr>
</tbody>
</table>

The seventh category, *reading*, was only identified during the first component of the text reconstruction task. Learners, before attempting to provide some corrections, would read the text provided to them.

The eighth category, *explanation*, includes turns where learners provide an explanation of the grammar point/rule. This particular activity occurred primarily during the text reconstruction and the dictogloss tasks following noticing/comparing. After noticing a discrepancy, learners were instructed to state the grammar rule to explain the differences between their text and the corrected transcript. While sharing some features with grammar deliberation, this category differs in that it reflects metalinguistic knowledge. For instance, Marta tells her peer: « parce que c’est mal…c’est avoir le conjugaison au passé composé et ce n’est pas… no se conjuga » [because it’s wrong it’s to have the conjugation in the past and it’s not...*it’s not conjugated*].
The ninth category, *task management*, includes instances where learners discuss aspects of the task including the following: (1) task instructions, (2) topic (written component), (3) sequence of the images (story completion), (4) recruiting attention from the teacher, and (5) quality of the work. Table 10 provides examples for each of the instances.

Table 10: *Examples of task management*

<table>
<thead>
<tr>
<th>Instances</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task instructions</td>
<td>Pourquoi. On doit écrire pourquoi. À côté de la phrase. [Why. We have to write why. Next to the sentence]</td>
</tr>
<tr>
<td>Topic</td>
<td>Et luego ya hablamos de los otros, ¿no? [And then we can talk about the others, right?]</td>
</tr>
<tr>
<td>Sequence</td>
<td>So c’est le troisième. La troisième [So it’s the third. The third].</td>
</tr>
<tr>
<td>Recruit attention</td>
<td>Caro Caro… Nous avons une question. [Caro Caro… we have a question].</td>
</tr>
<tr>
<td>Quality of work</td>
<td>¿Qué onda con el et? Ahora si se me fue la onda. [What’s up with the and? Now I am losing it].</td>
</tr>
</tbody>
</table>

The tenth category, *meaning deliberation*, includes turns where learners discuss the meaning at the sentence level. This function was mostly observed during the text reconstruction and the dictogloss tasks where learners were provided with existing ideas and structures. As such, in order to evaluate the accuracy of a sentence (text reconstruction) or reproduce a sentence (dictogloss), learners discussed the meaning of the ideas, for example: « Es que no entiendo esto. Ça ne vous dir.. y si les digo, no y si les dijera… » [Well, I don’t understand this. Doesn’t it… and if I tell them, no and if I would tell them…]. This category is related to vocabulary deliberations but is concerned with meaning at the sentence level.

The eleventh category, *clarification request*, includes turns where there is a communication breakdown between learners. In trying to successfully complete the tasks, learners collaborated and sought to clarify instances where meaning was ambiguous. For
example, David asks his peer to repeat her answer: « Est-ce que tu peux répéter le premier fois le premier chose que tu as dit? » [Can you repeat the first time…the first thing that you said?]

3.3.2 Languaging

To explore language learning opportunities and L3 development, the data was coded for LREs. In a first instance, the LREs were coded in terms of type: lexis-based LREs and form-based LREs (Kim, 2008a; Kim & McDonough, 2008; Leeser, 2004; Swain & Lapkin, 1998). Lexis-based LREs include instances where learners discuss aspects of meaning, spelling, and phonology. Lexis-based LREs can include as few as two turns to as many as 25 turns. For instance, in Example 3, Marta and David are working with the materials for the story completion task and Marta asks David about the meaning of the word ‘ennui’. With the help of the teacher, Marta and David learn the translation equivalent for the word ‘upset’. In this example, the LRE was resolved in five turns.

Example 3: Lexis-based LREs

9 David: Oh… comment ont dit ça… elle est très… ennui… elle est très ennui [Oh…how do we say that… she is very… bothered… she is very bothered]
10 Marta: Ennui c’est ‘enojada’? [Bothered it’s upset?]
11 David: No no c’est ennui non c’est… Caroline, comment on dit ‘enojado’ ? [No no it’s bothered no it’s… Caroline, how do we say upset?]
12 Caroline: Fâché [Upset]
13 David: Elle est fâchée. Très très fâchée. [She is very upset. Very very upset.]

Form-based LREs included instances where learners discussed aspects of morphology and syntax. For instance, in Example 4, David and Marimar are in the process of completing the writing component of the second story completion task and David discusses with Marimar the
correct conjugation of the verb to eat in the subjunctive mood. This form-based LRE begins in turn 9, where Marimar erroneously writes the verb to eat.

Example 4: *Form-based LREs*

14 David :  Il faut que tu
   [It is necessary that you]
15 Marimar:  Sigas con esta alimentación
   [*You continue with these eating habits*]
16 David :  Il faut que tu toujours... il faut que tu manges toujours or
   [It is necessary that you always... it is necessary that you eat always or]
17 Marimar:  Que tu mange* (writes ‘mange’ without 2nd p.s.)
   [that you eat]
18 David:  Manges
   [Eat]
19 Marimar:  Mange*
   [Eat]
20 David:  Non non mais c’est subjonctif
   [No no but it’s subjunctive]
21 Marimar:  Pero así va ¿no?
   [*But this is how it goes, right?*]
22 David:  Es ‘mangés’ -e-s parce que subjonctif c’est ‘je’ c’est avec –e ‘tu’ c’est avec –e-s
   [It’s ‘eat’ -e-s (2nd p.s.) because subjunctive it’s “I” it’s with –e (1st p.s.) ‘you’ it’s with -e-s (2nd p.s.)]
23 Marimar:  Il faut que tu manges... Il faut que tu manges toujours
   [It is necessary that you eat... It is necessary that you eat always]
24 David:  Tiens le liquid liquid paper
   [*Take the liquid liquid paper*]
25 Marimar:  Equis David
   [*Whatever David*]

In addition to coding the types of LREs, each LRE was coded in terms of outcome. In this context, four types of outcomes were identified: correctly resolved: learner-learner, correctly resolved: teacher-learner, incorrectly resolved LREs, and unresolved LREs.

The first outcome, correctly resolved LRE between learner-learner, includes instances where learners work collaboratively to resolve an LRE. In Example 5, Marta is asking her peer for the translation equivalent of the word screen. The peer responds with a translation and thus is considered correctly resolved between learner and learner.
Example 5: Correctly resolved – learner-learner

26 Marta: ¿Qué es écran?
[What is screen?]
27 Thomas: Pantalla.
[Screen.]

A correctly resolved LRE between teacher-learner included instances where the learners asked for assistance from the teacher, which led to a correct resolution. In this study, it is important to indicate that correctly resolved LREs that involved the teacher that were initiated by the teacher were not included in the current analysis. In Example 6, the learners are trying to understand the meaning of the word ‘soulier’. In turn 22, the teacher provides the learners with the synonym ‘chaussure’. Students continue to show that they do not understand and in turn 26, the teacher provides the translation equivalent in Spanish. The LRE is considered to be correctly resolved between the learners and the teacher.

Example 6: Correctly resolved – teacher-learner

28 Jessica: Qu’est-ce que c’est sou… sou…
[What is sh… sh…]
29 Marta: Soulier ↑
[Shoes]
30 Teacher: Soulier c’est chaussure
[Shoe is shoe]
31 Marta: C’est ¿qué?
[It’s what?]
32 Teacher: Chaussure
[Shoes]
33 Jessica Chaussure↑
[Shoes]
34 Teacher: Zapatos
[Shoes]

The third type of resolution includes incorrectly resolved LREs. In these cases, learners work together to reach a solution, however, the solution remains faulty. In Example 7, Marta is
asking for the translation of the verb esperar, to wait. In turn 28, David provides the incorrect translation, espère, which is the equivalent of to hope. Unsure of the answer, Marta questions the word and is reaffirmed in turn 30. Marta produces the incorrect sentence and the women hopes for him.

Example 7: Incorrectly resolved LRE

35 Marta: Et la femme est ‘esperando’ … ‘esperar’
[And the woman is waiting … to wait]
36 David: Sie Sie, pardon, elle espère
[She She, sorry, she hopes]
37 Marta: Elle espère↑
[She hopes]
38 David: Espère
[Hopes]
39 Marta: *Et la femme l’espère.
*[And the woman hopes for him.]

The fourth type of resolution is unresolved LRE. The learners in this case question their language use but do not provide a resolution to the language problem. In Example 8, Paco and Pedro discuss the verb ending and after suggesting a possible ending, Paco responds in line 34 that he does not know. The learners thus continue with their task leaving this LRE unresolved.

Example 8: Unresolved LRE

40 Paco: Asi está bien, no? Bueno, suena bien
[Like this it’s correct, right? Well, it sounds right.]
41 Pedro : Aca, con –ai, no verdad, no.
[Here, with –aï, no right, no.]
42 Paco: No lo sé.
[I don’t know.]

Finally, to explore patterns of languaging in light of resolution and language, each LRE was coded for language. Three patterns of language for LREs were identified: (1) Spanish-bilingual (L1-B), (2) L2 +L1/L3-bilingual (L2-B), and (3) French-bilingual (L3-B). Monolingual
LREs were not frequent because they included a number of turns. The patterns were determined by counting the number of words in each language during an LRE. Example 9 shows an example of an L3-B.

Example 9: Language pattern

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>Marimar: Un jour… mientras, maintenant</td>
</tr>
<tr>
<td></td>
<td>[One day… meanwhile, now]</td>
</tr>
<tr>
<td>44</td>
<td>David: Pendant</td>
</tr>
<tr>
<td></td>
<td>[During]</td>
</tr>
<tr>
<td>45</td>
<td>Marimar: Pendant↑</td>
</tr>
<tr>
<td></td>
<td>[During] ↑</td>
</tr>
<tr>
<td>46</td>
<td>David: Mientras… en temps que, no sé como, je ne sais pas comment dire</td>
</tr>
<tr>
<td></td>
<td>[Meanwhile… during the time, I don’t know, I don’t know how to say]</td>
</tr>
</tbody>
</table>

In this study, intra-coder reliability was established. Each transcript of the task performance data from Time 2 was initially coded by the researcher. At a one-month interval, each transcript from Time 2 was coded a second time. Differences between the two versions were identified. After resolving the discrepancies, the transcripts from Time 1 were then coded.

3.3.3 L3 development

Research findings from an SCT perspective suggest that learners use language to support the process of learning an L2. As discussed in the literature review, gains in L2 development are typically measured via a pre-post-delayed-posttest design. In this study, one of the goals was to find evidence of L3 development as a result of participating in LREs. Therefore, the development of individual posttest items was based on task performance data (LaPierre, 1994; Swain, 1998; Swain & Lapkin, 2001). The individual posttests were implemented during regularly-scheduled class times in the language laboratory. To examine L3 development, the responses from the multiple-choice items were scored for accuracy following Swain and Lapkin (1998) (e.g., correct and incorrect responses). The percentages of accuracy for each task type were calculated. In addition, the participants completed four individual recordings. The LREs
produced during task performance that were initiated by the focal participants were identified and they were cross-referenced with the individual recording data. The lexical and syntactic items that were produced spontaneously during the recordings that originated in LREs from task performance and were initiated by the focal participant were taken as evidence of L3 gains. In other words, as a result of languaging, evidence of internalization and development in the microgenetic domain is obtained.

3.3.4 Interview data

As is typical in qualitative research, data collection and analysis processes interacted continuously. The qualitative categories were not predetermined; rather, coding was grounded in the data. Once recorded, all of the interviews were transcribed verbatim. Then, each transcript was read recursively by the researcher. Data analysis codes were created. This led to the identification of six overarching themes. The six included the following: (1) attitudes/beliefs towards language use in the classroom; (2) foreign language learning strategies; (3) attitudes towards collaborative tasks; (4) strategies for approaching task types; (5) attitudes/beliefs towards peers; (6) attitudes towards collaborative work. Since the research reported here focuses on language mediation during task completion, the discussion focuses primarily on the first two categories: attitudes and beliefs about their use of the L1 in the classroom and language learning strategies.

3.4 Summary of methodology

In Chapter 3 I presented a detailed account of the research methodology that I used for this dissertation. In the capacity of teacher-researcher, I collected and coded learner-learner interaction data from four focal participants as they completed four types of pedagogical tasks on two separate occasions (decision-making task, story completion task, text reconstruction task,
and dictogloss task). Each task was followed by an individual posttest. These items were created from LREs that originated during task performance. After completing one task cycle (two pedagogical tasks and one posttest), I interviewed each learner to gain a clearer understanding from their perspective. The interaction data was coded for language patterns, specific mediation functions, and LREs. Responses and individual recordings from the posttests were coded for accuracy (paper and pencil test) and for spontaneous integration of items that originated in LREs (individual recording). For the interview data, each transcript was read and emerging themes were identified. This methodology has enabled me to gain an in-depth understanding of each of the four focal participants’ experiences. In Chapter 4 and Chapter 5, I present the results for each research question.
4 RESULTS

The present chapter is organized into three major sections. The first section presents the findings for the first research question which proposed to examine the impact of task types on the mediating functions of the learners’ L1, L2, and L3 during collaborative tasks. The second section examines the results for the second research question which considered the impact of task types on the occurrence and resolution of LREs. The third section reports the findings that investigated the relationship between languaging and L3 development. Prior to presenting the results, I begin with a brief description of each task and how they unfolded in the class.

4.1 Prelude: Overview of task implementation

Over the course of the semester, the four focal participants completed four types of tasks on two separate occasions. Each task type was carefully crafted to create comparable versions. Because the tasks were carried out in class during regularly scheduled class times, time on task was fairly consistent between learners, as illustrated in Table 11. Table 11 provides an overview of the total amount of time on task in minutes, the number of turns\(^5\), as well as their mean and standard deviation. Learners had between 30 and 40 minutes to complete each task and differences between learners were minimal as illustrated by the mean and SD. Overall, the results show that time on task was greater at Time 2.

Although time on task was comparable across the four learners, David, Felip, and Marta tended to produce a greater number of turns than the mean whereas Paco was consistently well below the mean. The mean for the eight tasks was 131 turns: David produced 148 turns, Felip

\(^{5}\) A turn included everything except untranscribable data.
and Marta each produced a mean of 140 turns and Paco had a mean of 99.5 turns. The difference between Paco and his peers was especially salient during the second story completion task and text reconstruction task.
<table>
<thead>
<tr>
<th>Component 1</th>
<th>Component 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time (minutes)</strong></td>
<td><strong>Turns (number)</strong></td>
<td><strong>Time (minutes)</strong></td>
</tr>
<tr>
<td><strong>Deci-task 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>David</td>
<td>19.5</td>
<td>85</td>
</tr>
<tr>
<td>Felip</td>
<td>17</td>
<td>117</td>
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<tr>
<td>Marta</td>
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<td>47</td>
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<td>Felip</td>
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<td>99</td>
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<td>113</td>
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<td></td>
<td>M = 93.3</td>
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<td>Felip</td>
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<td></td>
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<td>79</td>
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<td>149</td>
</tr>
<tr>
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<td>111</td>
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<td>183</td>
</tr>
<tr>
<td>Felip</td>
<td>19</td>
<td>143</td>
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<tr>
<td>Marta</td>
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<td>123</td>
</tr>
<tr>
<td>Paco</td>
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<td>68</td>
</tr>
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<td>SD = 4.2</td>
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Table 12: **Time and number of turns (continued)**

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<tr>
<th>Component</th>
<th>Time (minutes)</th>
<th>Turns (number)</th>
<th>Time (minutes)</th>
<th>Turns (number)</th>
<th>Time (minutes)</th>
<th>Turns (number)</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
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<td>David</td>
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<td>154</td>
<td>5.5</td>
<td>43</td>
<td>21</td>
<td>197</td>
</tr>
<tr>
<td>Felip</td>
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<td>94</td>
<td>5.5</td>
<td>29</td>
<td>21</td>
<td>123</td>
</tr>
<tr>
<td>Marta</td>
<td>15.5</td>
<td>84</td>
<td>5.5</td>
<td>27</td>
<td>21</td>
<td>111</td>
</tr>
<tr>
<td>Paco</td>
<td>15</td>
<td>89</td>
<td>6.5</td>
<td>59</td>
<td>21.5</td>
<td>148</td>
</tr>
<tr>
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<td>M = 15.4</td>
<td>M = 105.3</td>
<td>M = 6.5</td>
<td>M = 39.5</td>
<td>M = 21.1</td>
<td>M = 144.8</td>
</tr>
<tr>
<td></td>
<td>SD = 0.3</td>
<td>SD = 32.8</td>
<td>SD = 0.5</td>
<td>SD = 14.8</td>
<td>SD = 0.3</td>
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</tr>
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<td><strong>Dict-task 2</strong></td>
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<td>69</td>
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<td>Felip</td>
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<td>Marta</td>
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<td>17</td>
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<td>87</td>
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<td>190</td>
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<td><strong>Total</strong></td>
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<td>SD = 2.9</td>
<td>SD = 11.9</td>
<td>SD = 0.3</td>
<td>SD = 46.3</td>
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</tbody>
</table>

Note. *Deci-task* = decision-making task; *story-task* = story completion task; *text-task* = text reconstruction task; *dict-task* = dictogloss task

4.2 Language mediation and collaborative tasks

The first research question sought to uncover the general language patterns and the specific mediating functions that the learners’ languages served during four types of collaborative tasks over time in an L3 classroom. To provide a rich description of what transpired during each task, I analyzed and compared the distribution of L1, L2, and L3 use during the four task types and their respective subcomponents. After establishing the quantity of language use for each task, I examined the specific mediation functions of each language for the four tasks. In the present study, mediation is operationalized as the use of language as a cognitive tool to assist with the completion of the task. The following section is a cross-case analysis that summarizes the major findings.
4.2.1 Cross-case analysis of L1, L2, and L3 use

To examine the distribution of L1, L2, and L3 use, each turn was coded for language. In the present study, following Foster, Tonkyn, & Wigglesworth (2000), a turn included “everything except untranscribable data” (p.370). In other words, one-word utterances were counted as a turn given that these markers served to reinforce what a peer was saying. Table 13 reports, for each focal participant, the number of turns (n) and the percentages (%) of L1-monolingual turns, L1-bilingual turns (predominant Spanish with French), L2 +L1/L3-bilingual (predominant Spanish or French with English), L3-monolingual, and L3-bilingual turns (predominant French) produced during each component of each task. Turns that included unintelligible utterances or bilingual discourse markers (e.g., ok, uhu) were coded as not available (N/A).

The results in Table 13 illustrate that L2 mediation was minimal during task performance. Learners in this context, while proficient in Spanish and in English (refer to Table 3 for English proficiency scores), used the L1 or the L3 during their interactions. For instance, Felip and David relied almost exclusively on their L3 whereas the results show that Marta and Paco tended to use the L1 more frequently.
Table 13: General patterns of L1, L2, and L3 mediation

<table>
<thead>
<tr>
<th>Component #1 - Oral – Reconstructing⁶</th>
<th>L1-mono</th>
<th>L1-bi</th>
<th>L2</th>
<th>L3-mono</th>
<th>L3-bi</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>David</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Total</td>
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<td>11</td>
<td>16</td>
<td>829</td>
<td>28</td>
<td>48</td>
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<td>1.4 (0.9)</td>
<td>2.0 (1.9)</td>
<td>103.6 (84.8)</td>
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</tr>
<tr>
<td>SD</td>
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<td>1.7 (1.0)</td>
<td>1.5 (1.7)</td>
<td>52.1 (4.6)</td>
<td>3.1 (1.8)</td>
<td>3.5 (4.1)</td>
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<tr>
<td>Component #2 - Written – Comparing</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Total</td>
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<td>7</td>
<td>10</td>
<td>574</td>
<td>33</td>
<td>44</td>
</tr>
<tr>
<td>Mean</td>
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<td>1.3 (1.5)</td>
<td>71.8 (82.2)</td>
<td>4.1 (4.0)</td>
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<tr>
<td>SD</td>
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<td>1.2 (1.5)</td>
<td>33.2 (10.4)</td>
<td>4.4 (3.1)</td>
<td>5.3 (4.9)</td>
</tr>
<tr>
<td>Felip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Mean</td>
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<td>0.3 (0.3)</td>
<td>99.6 (90.8)</td>
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<td>Marta</td>
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<td>6.0 (3.0)</td>
<td>5.4 (2.6)</td>
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<td>Mean</td>
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<td>3.3 (4.7)</td>
<td>0.4 (0.7)</td>
<td>37.5 (59.6)</td>
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<td>SD</td>
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<td>14.8 (21.4)</td>
<td>3.2 (3.8)</td>
<td>3.2 (3.3)</td>
</tr>
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</table>

⁶ The percentages are based on the number of turns for each language divided by the total number of turns for a given component.
In addition to establishing the general patterns of language use, the analysis examined whether the task types impacted the specific mediating functions for each focal participant. In the present study, 11 unique functions were identified including the following: (1) grammar deliberation, (2) vocabulary deliberation, (3) eliciting information from peer, (4) noticing/comparing, (5) clarification request, (6) task management, (7) evaluating information, (8) generating ideas, (9) meaning deliberation, (10) explanation, and (11) reading. The language patterns for the specific functions were considered and the results suggest that the task types impacted the language patterns and the specific mediating functions.

During both components of the decision-making tasks, the primary mediating function for the four participants was generating ideas. The secondary functions were less clear and depended on various factors such as complying with the instructions and proficiency in the target language. For instance, during the oral component of the task, David and Felip’s secondary functions focused on content (e.g., eliciting information and evaluating information). In turn, Marta and Paco focused on vocabulary deliberations. Despite these differences, one of the secondary functions common to the focal participants was task management. During the written components of the decision-making tasks, the secondary functions included grammar deliberations and vocabulary deliberations in addition to task management. However, the frequency fluctuated between the learners. For instance, grammar deliberations were higher for Felip (23%) and lower for Paco (8%) whereas the opposite pattern was observed during task management (i.e., 15% for Felip and 26% for Paco).

During the story completion task, the dominant mediating functions included task management, vocabulary deliberations, and generating ideas. Despite the overlap, the primary function differed for each focal participant in the following manner: David had a higher
percentage of vocabulary deliberation, Felip and Paco had a higher percentage of task management, and Marta had a higher percentage of generating ideas. During the written components, the four participants shared the same primary function: generating ideas and vocabulary deliberations. It can be inferred that during the written components of the story completion tasks, the learners’ attention is drawn more consistently towards meaning and form takes on a secondary role.

During the text reconstruction task, grammar deliberations were dominant suggesting that the nature of the task created more opportunities for learners to focus on form. The secondary function, although less frequent, was also shared by the four participants (i.e., reading). This function, unique to a text reconstruction task, allows the participants to read the text aloud so that they can analyze the text. The findings suggest that reading was the precursor for follow-up functions: after identifying discrepancies, learners discussed grammar unless correct modifications had been made during the first component. In those cases, learners commented on the quality of their work (i.e., task management). The results further indicate some differences between the participants. David and Felip had a higher number of turns that included instances where they explained the grammatical errors they found as a result of comparing the two versions of the text. In contrast, Marta and Paco simply acknowledged the discrepancies and continued with their analysis.

For the dictogloss task, the primary mediating functions for the first component were generating ideas and grammar deliberations. For the second component, the primary function was comparing. The distribution of these functions for the two components was highly similar across the four participants, with one exception. During the comparing component of the task, a higher percentage of comparing was identified for David, namely 62% compared to his peers
who ranged between 43% and 49%. The distribution of the second primary functions were less clear and included vocabulary deliberations (Paco), task management (Felip and Marta), and grammar deliberations (David).

In terms of language patterns, although David and Felip seldom relied on their L1 during task performance, the results for Marta and, to a lesser extent, Paco indicate that they tended to rely more frequently on their L1 for a subset of the functions. During the oral components of the decision-making task and the story completion task, L1 mediation was most salient for task management and, in the case of Marta, vocabulary deliberations. During the text reconstruction task, language patterns were salient. While David and Felip used the L3 almost exclusively for grammar deliberations, Marta and Paco frequently relied on their shared L1. During the second component, the dominant function was comparing the two versions of the text. The secondary functions included grammar deliberations, explaining grammar errors, and task management. Finally, the L1 was used minimally to mediate the completion of the dictogloss tasks. Overall, the findings suggest that the L3 is the primary vehicle for generating ideas and that the L1 enables some learners more than others to talk about the task and about the language, which ultimately supports the completion of the tasks.

4.2.2 Patterns of L1, L2, and L3 use during pedagogical tasks

The cross-case analysis provides a brief synopsis of the key findings. In the next section, I present the detailed results regarding the impact of task types on L1, L2, and L3 use and the impact of tasks on the specific mediating functions of language for each focal participant. When discussing the distribution of language use, I present the number of turns (n) and the percentages (%) of L1-monolingual, L1-bilingual, L2-bilingual, L3-monolingual, and L3-bilingual turns.
produced during each task. For the specific mediating functions, the four most frequent functions for each task type are presented and organized by language.

4.2.2.1 Decision-making task: General patterns of L1, L2, and L3 mediation

Table 14 shows the number of turns (n) and the percentages (%) of L1-monolingual turns, L1-bilingual turns, L2-bilingual, L3-monolingual, and L3-bilingual for each focal participant. The mean percentages for the two components were calculated. Results show that learners relied heavily on L3-monolingual (76%) and only minimally on L3-bilingual turns (3%); however, these findings provide a skewed representation of individual performances. The individual results show some differences. For instance, David and Felip relied primarily on L3 mediation whereas Marta and Paco turned more frequently to the L1 to complete the task. The two task components were also compared. During the oral components, Felip used L3-monolingual for 90% of the turns and during the written, for 80% of the turns. Similarly, David used L3-monolingual for 84% and 80% of the turns in each component. Unlike his peers, Paco’s language patterns differed sharply across the two components: during the oral components, L3-monolingual accounted for 74% of the turns but while writing, only 42% of the turns. He also showed a heavier reliance on L3-bilingual turns. Finally, for Marta, L3-monolingual turns accounted for 56% of the data and L3-bilingual accounted for 9% of the turns. During the second components, L3 use was even lower, for example, 35% L3-bilingual and 9% L3-monolingual.
Table 14: Global patterns of L1, L2, and L3 mediation for the decision-making task

<table>
<thead>
<tr>
<th></th>
<th>Oral Component - Decision-making Task</th>
<th>Written Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L1-mono</td>
<td>L1-bi</td>
</tr>
<tr>
<td>David: 1</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>David: 2</td>
<td>3 (5.9)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Felip: 1</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Felip: 2</td>
<td>0 (0.0)</td>
<td>1 (1.0)</td>
</tr>
<tr>
<td>Marta: 1</td>
<td>12 (25.5)</td>
<td>3 (6.4)</td>
</tr>
<tr>
<td>Marta: 2</td>
<td>19 (16.8)</td>
<td>9 (8.0)</td>
</tr>
<tr>
<td>Paco: 1</td>
<td>1 (2.4)</td>
<td>1 (2.4)</td>
</tr>
<tr>
<td>Paco: 2</td>
<td>24 (29.3)</td>
<td>2 (2.4)</td>
</tr>
<tr>
<td>Sum</td>
<td>59.0 (10.0)</td>
<td>16.0 (2.5)</td>
</tr>
<tr>
<td>Mean</td>
<td>7.4 (10.0)</td>
<td>2.0 (2.5)</td>
</tr>
<tr>
<td>SD</td>
<td>9.7 (12.2)</td>
<td>3.0 (3.1)</td>
</tr>
</tbody>
</table>

In the next section, results pertaining to the specific mediating functions of the L1 and L3 during the decision-making tasks are presented for each focal participant.

4.2.2.2 Decision-making task: Specific mediating function of the L1 and L3

Starting with David, Table 15 presents the number of turns and percentages for the different specific mediating functions at Times 1 and 2 during the two decision-making tasks.

---

7 The percentages are based on the number of turns for each language pattern divided by the total number of turns for a given component.
The results show that David seldom used the L1 and that he used the L1 for task management (n=5).

Table 15: Specific L1/L3 mediating functions for the decision-making task – David

<table>
<thead>
<tr>
<th>Oral component</th>
<th>Generate ideas</th>
<th>Elicit info</th>
<th>Task manage</th>
<th>Evaluate info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>3 (5.9)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>1.5 (3.0)</td>
<td>0 (0.0)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Written component</th>
<th>Generate ideas</th>
<th>Grammar</th>
<th>Task manage</th>
<th>Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>16 (18.8)</td>
<td>14 (16.5)</td>
<td>8 (9.4)</td>
<td>17 (20.0)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>15 (29.4)</td>
<td>10 (19.6)</td>
<td>7 (13.7)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>15.5 (24.1)</td>
<td>12 (18.1)</td>
<td>7.5 (11.6)</td>
<td>8.5 (10.0)</td>
</tr>
</tbody>
</table>

The analysis of the patterns of L3 use revealed that David relied on the L3 to generate ideas during the oral (24%) and the written components of the tasks (39%). The secondary functions differed between the oral and the written components. During the former components, L3 was used to elicit information from peers (18%), whereas during the written component, the L3 served the function of grammar deliberations (14%). The third most frequent function for both components was task management, namely, 12% and 13%. Finally, the fourth most salient function during the oral component was evaluating information; however, this function was only identified at Time 1 (10%). During the decision-making task, each participant had different information about four apartments (Time 1) and six countries (Time 2). They were instructed to

---

8 The percentages are based on the number of turns for a particular function divided by the total number of turns produced during the specific component.
exchange and evaluate their information in order to reach a decision-making about one location.

During the first decision-making task, when David collaborated with Alejandra, he compared and contrasted information about the various apartments but at Time 2, he did not evaluate the information pertaining to the various countries. Example 10 shows how David evaluated the information about the apartment:

Example 10: *Evaluating information during the decision-making task*

1. David: *Uhu deux terrasses… Combien se mesure quel est le mesure de la terrasse?*  
   [Yes, two decks… What is the size of the deck?]
2. Alejandra: *Deux mètres*  
   [Two meters]
3. David: *Deux mètres, ah c’est bien. C’est un peu petit mais c’est bien.*  
   [Two meters, ah it’s good. It’s a bit small but it’s good].

This additional comment illustrates how David used the information and related it to his own experiences and preferences. Finally, during the written component, the L3 was used for vocabulary deliberations, primarily at Time 1 (14%). In sum, results indicate that the decision-making task promoted L3 mediation for generating ideas, evaluating information, and task management. Also, with the analysis, a modality effect was uncovered such that David only discussed grammar during the written components. During the oral component, David’s attention was focused on generating ideas and requesting or evaluating information.

In the next section, I present Felip’s patterns of language use for the decision-making task. As illustrated in Table 16, he used the L1 sparingly; however, the results show that he used it primarily for grammar deliberations at Time 1 (15%) and only during the written component of the task.
Table 16: Specific L1/L3 mediating functions for the decision-making task – Felip

<table>
<thead>
<tr>
<th>Oral component</th>
<th>Time</th>
<th>Generate ideas</th>
<th>Evaluate</th>
<th>Elicit info</th>
<th>Task manage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>1 (1.0)</td>
<td>1 (1.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0.5 (0.5)</td>
<td>0.5 (0.5)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>43 (36.8)</td>
<td>33 (28.5)</td>
<td>9 (7.7)</td>
<td>10 (8.5)</td>
<td>10 (8.5)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>44 (44.4)</td>
<td>0 (0.0)</td>
<td>10 (10.1)</td>
<td>9 (9.1)</td>
<td>9 (9.1)</td>
</tr>
<tr>
<td>Mean</td>
<td>43.5 (40.6)</td>
<td>16.5 (14.3)</td>
<td>9.5 (8.9)</td>
<td>9.5 (8.8)</td>
<td>9.5 (8.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Written component</th>
<th>Time</th>
<th>Generate ideas</th>
<th>Grammar</th>
<th>Task manage</th>
<th>Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>1 (1.1)</td>
<td>14 (14.7)</td>
<td>2 (2.1)</td>
<td>4 (4.2)</td>
<td></td>
</tr>
<tr>
<td>2 – L1</td>
<td>2 (2.2)</td>
<td>0 (0.0)</td>
<td>2 (2.2)</td>
<td>1 (1.1)</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1.5 (1.7)</td>
<td>7 (7.4)</td>
<td>2 (2.2)</td>
<td>2.5 (2.7)</td>
<td></td>
</tr>
<tr>
<td>1 – L3</td>
<td>23 (24.2)</td>
<td>19 (20.0)</td>
<td>8 (8.4)</td>
<td>9 (9.5)</td>
<td></td>
</tr>
<tr>
<td>2 – L3</td>
<td>35 (38.3)</td>
<td>10 (11.2)</td>
<td>15 (16.9)</td>
<td>12 (13.5)</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>29 (31.8)</td>
<td>14.5 (15.6)</td>
<td>11.5 (12.7)</td>
<td>10.5 (11.5)</td>
<td></td>
</tr>
</tbody>
</table>

Patterns of L3 mediation indicate that the dominant mediating function of the L3 during the two oral components was to generate ideas (41%). Similar to David, the secondary function was evaluating information (14%), again, only at Time 1. During the oral components of the decision-making task, learners were instructed to exchange information in order to make a selection. At Time 1, the goal was to select one apartment based on several criteria such as cost, location, amenities. In Lines 4 and 8 in Example 11, Felip evaluated the information that he gathered from his peer:

Example 11: Evaluating information during the decision-making task

4 Felip: Moi je préfère de vivre avec une famille que avec un fumeur.
   [I prefer to live with a family than with a smoker.]

5 Jessica: Oui, oui, je préfère ça. Mais je n’ai... bon avec la famille je n’aime pas parce que il y a deux enfants donc peut-être pour étudier la privacité.
   [Yes, yes, I prefer that. But I don’t have… well with the family I don’t like that because there two kids and perhaps to study and privacy.]

6 Felip: Oui tu as raison mais
   [Yes, you are right]

7 Jessica: Et bon l’appartement moderne c’est bien je pense mais c’est…
And the modern apartment it’s good I think but it’s…

Felip: Mais c’est cher.
[But it’s expensive.]

During the written component, the L3 continued to serve one dominant function, specifically, generating ideas (32%). Finally, L3 mediation was similarly distributed across three additional functions: grammar deliberations (16%), task management (13%), and vocabulary deliberations (12%).

Although David and Felip used the L3 similarly, the analysis of Marta’s task performance, reported in Table 17, provides a different picture.

Table 17: Specific L1/L3 mediating functions for the decision-making task – Marta

<table>
<thead>
<tr>
<th>Oral component</th>
<th>Generate ideas</th>
<th>Vocabulary</th>
<th>Task manage</th>
<th>Elicit info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0 (0.0)</td>
<td>4 (8.6)</td>
<td>9 (19.1)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>0 (0.0)</td>
<td>10 (8.8)</td>
<td>11 (9.8)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>0 (0.0)</td>
<td>7 (8.7)</td>
<td>10 (14.5)</td>
<td>0 (0.0)</td>
</tr>
</tbody>
</table>

| 1 – L3         | 10 (21.3)      | 10 (21.2)  | 2 (4.3)     | 7 (14.9)    |
| 2 – L3         | 35 (31.0)      | 10 (8.9)   | 7 (6.2)     | 10 (8.9)    |
| Mean           | 22.5 (26.2)    | 10 (15.1)  | 4.5 (5.3)   | 8.5 (11.9)  |

<table>
<thead>
<tr>
<th>Written component</th>
<th>Generate ideas</th>
<th>Vocabulary</th>
<th>Grammar</th>
<th>Task manage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>2 (2.7)</td>
<td>12 (16.0)</td>
<td>11 (14.7)</td>
<td>9 (12.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>4 (4.0)</td>
<td>18 (18.4)</td>
<td>3 (3.1)</td>
<td>12 (12.2)</td>
</tr>
<tr>
<td>Mean</td>
<td>3 (3.4)</td>
<td>15 (17.2)</td>
<td>7 (8.9)</td>
<td>10.5 (12.1)</td>
</tr>
</tbody>
</table>

| 1 – L3            | 19 (25.4)      | 3 (4.0)    | 7 (9.3)   | 1 (1.3)     |
| 2 – L3            | 25 (25.5)      | 5 (5.1)    | 11 (11.2) | 4 (4.1)     |
| Mean              | 22 (25.5)      | 4 (4.6)    | 9 (10.3)  | 2.5 (2.7)   |

During the oral components of the decision-making task, the three most common mediating functions included generating ideas (26%), vocabulary deliberation (24%), task management (20%), and to a lesser extent, eliciting information (12%). There was no evidence that Marta evaluated the information from her peers. Unlike David and Felip, the results show that the L1 and the L3 were in complementary distribution. For example, L1 mediation served task
management functions (15%). Conversely, the L3 served two distinct functions: generating ideas (26%) and eliciting information (12%). Some overlap between L1 and L3 mediation was identified for vocabulary deliberations. Example 12, taken from the first decision-making task, illustrates the alternating patterns for these functions as Marta and Tamara are exchanging information. In turn 10, Marta confirms her role via the L1 and begins to elicit information from her peer in turn 12. This is halted by a lexical gap and she turns to the L1 to ask about vocabulary. Then, in turn 14, she switches back to her L3 to elicit information from her peer.

Example 12: Alternating functions of L1 and L3 during the decision-making task

9 Tamara: Six cents ah six cents par mois chaqué non-meuble et l’électricité et gaz naturel e…. pas de internet.
   [Six hundred ah six hundred per month each without furniture and electricity and natural gas e… no internet]
10 Marta: Mais. Yo te pregunto, ¿no?
   [But. I should ask you, right?]
11 Tamara: Aha
   [Yes]
12 Marta: E…. Il y a des… como se dice jardines… jardin?
   [E…. Are there any…. how do you say garden…. garden?]
13 Tamara: Sí, no il n’y a pas.
   [Yes, no, there aren’t any]
14 Marta: Combien de temps o combien de minutes e… en voiture tu tu peux faire e… pour aller à l’université?
   [How much time or how many minutes e… by car does it take to go to the university?]

During the written component, the four most frequent functions included generating ideas (28%), vocabulary deliberations (22%), task management (20%), and to a lesser extent, grammar deliberations (15%). Again, L1 and L3 mediation served complementary functions: L1 was used for task management (12%) and for vocabulary deliberations (17%). In turn, the L3 was used for generating ideas (26%). Finally, both the L1 and the L3 played a role in grammar deliberations.

Table 18 presents the results for Paco. During the oral components, the L3 was used for generating ideas (34%) followed by task management (20%), vocabulary deliberations (14%),
and eliciting information (9%). Paco and Marta show similar patterns such that generating ideas (33%), vocabulary deliberations (11.1%), and eliciting information (9.2%) were primarily mediated via the L3 whereas task management functions were mediated via the L1 and the L3. During the written components, the primary function was also generating ideas (35%) and was mediated primarily via the L3. Secondary functions included task management (26%) and vocabulary deliberations (18%) and were mediated primarily via the L1. In sum, complementary mediating functions for the L1 and the L3 were identified. The results show that the primary function of the L1 for the decision-making task was task management.

The first research question examined if patterns of language mediation would change over time. Overall, the focal participants’ performance at Times 1 and 2 were similar. However, in the case of Paco, distinct patterns between Times 1 and 2 were identified. During the oral component at Time 1, the primary function was generating ideas (44%) and task management (7%); however, at Time 2, less time was spent generating ideas (24%) and more turns were

### Table 18: Specific L1/L3 mediating functions for the decision-making task – Paco

<table>
<thead>
<tr>
<th></th>
<th>Generate ideas</th>
<th>Task manage</th>
<th>Vocabulary</th>
<th>Elicit info</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral component</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>1</td>
<td>(2.4)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>2</td>
<td>(2.4)</td>
<td>15</td>
<td>(18.3)</td>
</tr>
<tr>
<td>Mean</td>
<td>1</td>
<td>(1.2)</td>
<td>8</td>
<td>(10.4)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>18</td>
<td>(43.9)</td>
<td>2</td>
<td>(4.9)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>18</td>
<td>(22.0)</td>
<td>12</td>
<td>(14.6)</td>
</tr>
<tr>
<td>Mean</td>
<td>18</td>
<td>(33.0)</td>
<td>7</td>
<td>(9.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Generate ideas</th>
<th>Task manage</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Written component</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>1</td>
<td>(1.6)</td>
<td>9</td>
<td>(14.8)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>2</td>
<td>(2.6)</td>
<td>20</td>
<td>(25.6)</td>
</tr>
<tr>
<td>Mean</td>
<td>1.5</td>
<td>(2.1)</td>
<td>14.5</td>
<td>(20.2)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>23</td>
<td>(37.7)</td>
<td>6</td>
<td>(9.8)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>21</td>
<td>(26.9)</td>
<td>2</td>
<td>(2.6)</td>
</tr>
<tr>
<td>Mean</td>
<td>22</td>
<td>(32.3)</td>
<td>4</td>
<td>(6.2)</td>
</tr>
</tbody>
</table>
coded for task management (33%) and vocabulary deliberations (20%). Also, the results indicate that L1 mediation increased for vocabulary deliberations (20% difference between Times 1 and 2) and for task management (11% difference between Times 1 and 2). There was evidence that while working on the second decision-making task, Paco interrupted the conversation to clarify the instructions which was realized via both the L1 and the L3, as shown in Example 13. For instance, Lines 15 and 17 are produced via the L3; however, by Lines 21, Paco clarifies the task requirements via the L1:

Example 13: *Alternating functions of L1 and L3 during the decision-making task*

15  Paco:  Ah pour chaque pays  
[Ah for each country.]
16  Tamara:  Ah, ¿Es para cada uno? 
[Ah it’s for each one?]
17  Paco:  Je vais trouvé  
[I will look for]
18  Tamara:  Ah la Inde  
[Ah, India]
19  Paco:  Ah, si eso tiene sentido  
[Ah, this makes sense]
20  Tamara:  Entonces yo te digo de eso  
[So I give you this information.]
21  Paco:  No no no, hay que quedarnos en la India intercambiar información porque tengo información que tú no tienes  
[No no no, we have to stay with India exchange information because I have information that you don’t have]

To review, the analysis identified that during the decision-making task, David and Felip seldom relied on L1 mediation and that the primary function of the L3 included generating ideas during the oral and written components. Also, David and Felip exchanged and evaluated their peers’ information. Unlike their peers, Marta and Paco relied more frequently on L1 mediation, albeit for specific functions only (e.g., task management, grammar deliberations, and vocabulary deliberations). In other words, the findings suggest that the learners are able to sustain
discussions about meaning via the target language but when focusing on grammar and managerial aspects, Marta’s and Paco’s L1 mediated the completion of the task.

4.2.2.3 Story completion task: General patterns of L1, L2, and L3 mediation

During the story completion tasks, the global findings suggest that the focal participants are able to engage in sustained conversations via the target language. Table 19 presents the number of turns (n) and the percentages (%) of L1-monolingual turns, L1-bilingual turns, L2-bilingual, L3-monolingual, and L3-bilingual turns. Felip had the highest percentages of L3-monolingual mediation (92%) during the oral component and during the written component (81%). Similarly, David relied primarily on the L3. The mean percentages of L3-monolingual mediation for the first and second components were 79%. Like David and Felip, the results show that Paco used L3-monolingual for 72% of the turns; however, L3 use decreased during the written components (43%). Finally, the results show that Marta used the L1 more frequently to help her navigate through the task. During the oral and written components, L3 mediation accounted for 61% and 52% of her turns. In the next section, I present the findings for the specific mediating functions of the L1 and L3.
### Table 19: Global patterns of L1, L2, and L3 mediation for the story completion task

<table>
<thead>
<tr>
<th>Oral Component – Story completion</th>
<th>L1-mono</th>
<th>L1-bi</th>
<th>L2</th>
<th>L3-mono</th>
<th>L3-bi</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>David: 1</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>62</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>David: 2</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>63</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Felip: 1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>35</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Felip: 2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>29</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Marta: 1</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>58</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Marta: 2</td>
<td>15</td>
<td>3</td>
<td>3</td>
<td>36</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Paco: 1</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>41</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Paco: 2</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>52</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Sum</td>
<td>49</td>
<td>10</td>
<td>12</td>
<td>376</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>Mean</td>
<td>6.1</td>
<td>1.3</td>
<td>1.5</td>
<td>47.0</td>
<td>3.4</td>
<td>4.1</td>
</tr>
<tr>
<td>SD</td>
<td>5.0</td>
<td>1.7</td>
<td>1.7</td>
<td>13.4</td>
<td>2.1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

### Written Component – Comparing

<table>
<thead>
<tr>
<th>Written Component – Comparing</th>
<th>L1-mono</th>
<th>L1-bi</th>
<th>L2</th>
<th>L3-mono</th>
<th>L3-bi</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>David: 1</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>77</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>David: 2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>136</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Felip: 1</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>53</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Felip: 2</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>156</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Marta: 1</td>
<td>19</td>
<td>3</td>
<td>3</td>
<td>56</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Marta: 2</td>
<td>43</td>
<td>19</td>
<td>0</td>
<td>77</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Paco: 1</td>
<td>24</td>
<td>3</td>
<td>1</td>
<td>40</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Paco: 2</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>2</td>
<td>4</td>
</tr>
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<td>Sum</td>
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<td>33</td>
<td>9.0</td>
<td>608</td>
<td>62</td>
<td>68</td>
</tr>
<tr>
<td>Mean</td>
<td>15.3</td>
<td>4.1</td>
<td>1.1</td>
<td>76.0</td>
<td>7.8</td>
<td>8.5</td>
</tr>
<tr>
<td>SD</td>
<td>13.5</td>
<td>4.1</td>
<td>1.1</td>
<td>48.1</td>
<td>5.9</td>
<td>4.7</td>
</tr>
</tbody>
</table>

#### 4.2.2.4 Story completion task: Specific mediating function of the L1 and L3

Results for David, presented in Table 20, indicate that the L1 played a minor role compared to the L3 during the oral and written components. During the oral components, the L3 served two primary functions: vocabulary deliberations (31%) and task management (29%). The L3 was used for generating ideas (15%). Although David completed the oral components primarily via the L3, the results suggest that some vocabulary deliberations were mediated via the L1 (6%). During the written components, the L3 was used primarily for generating ideas.
(34%) followed by vocabulary deliberations (23%) and grammar deliberations (16%). In completing the written component, David seldom relied on L1 mediation.

Felip seldom relied on L1 mediation; however, there was some evidence for vocabulary deliberations (8%) during the written component at Time 1, as illustrated in Table 21. Similar to David, the L3 was dominant. The analysis of L3 mediation led to the identification of four dominant mediating functions, common to both components of the task: (1) generating ideas, (2) grammar deliberation, (3) task management, and (4) vocabulary deliberations. Despite these overlaps, the primary function differed between the oral and the written components. The L3 was used primarily for task management purposes during the oral component (38%) and for generating ideas during the written component (39%). The secondary function during both components was vocabulary deliberations.

Table 20: Specific L1/L3 mediating functions for the story completion task – David

<table>
<thead>
<tr>
<th>Oral component</th>
<th>Vocabulary</th>
<th>Task manage</th>
<th>Generate ideas</th>
<th>Eliciting info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>2 (2.5)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>7 (8.8)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>4.5 (5.6)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>24 (30.0)</td>
<td>27 (33.8)</td>
<td>8 (10.0)</td>
<td>3 (3.8)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>25 (31.7)</td>
<td>19 (24.1)</td>
<td>15 (19.0)</td>
<td>3 (3.8)</td>
</tr>
<tr>
<td>Mean</td>
<td>24.5 (30.9)</td>
<td>23 (29.0)</td>
<td>11.5 (14.5)</td>
<td>3 (3.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Written component</th>
<th>Generate ideas</th>
<th>Vocabulary</th>
<th>Grammar</th>
<th>Task manage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0 (0.0)</td>
<td>3 (2.9)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>2 (1.2)</td>
<td>0 (0.0)</td>
<td>1 (0.6)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>1 (0.6)</td>
<td>1.5 (1.5)</td>
<td>0.5 (0.3)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>34 (33.3)</td>
<td>33 (32.3)</td>
<td>10 (9.8)</td>
<td>7 (6.9)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>58 (34.9)</td>
<td>24 (14.4)</td>
<td>35 (21.1)</td>
<td>16 (9.6)</td>
</tr>
<tr>
<td>Mean</td>
<td>46 (34.1)</td>
<td>28.5 (23.4)</td>
<td>22.5 (15.5)</td>
<td>11.5 (8.3)</td>
</tr>
</tbody>
</table>
Table 21: Specific L1/L3 mediating functions for the story completion task – Felip

### Oral component

<table>
<thead>
<tr>
<th>Time</th>
<th>Task manage</th>
<th>Vocabulary</th>
<th>Generate ideas</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>1</td>
<td>(2.6)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>0</td>
<td>(0.0)</td>
<td>0.5</td>
<td>(1.3)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>16</td>
<td>(41.1)</td>
<td>8</td>
<td>(20.5)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>11</td>
<td>(35.5)</td>
<td>9</td>
<td>(29.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>13.5</td>
<td>(38.3)</td>
<td>8.5</td>
<td>(24.8)</td>
</tr>
</tbody>
</table>

### Written component

<table>
<thead>
<tr>
<th>Time</th>
<th>Task manage</th>
<th>Vocabulary</th>
<th>Generate ideas</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>2</td>
<td>(2.2)</td>
<td>10</td>
<td>(14.3)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>4</td>
<td>(2.3)</td>
</tr>
<tr>
<td>Mean</td>
<td>1</td>
<td>(1.1)</td>
<td>7</td>
<td>(8.3)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>35</td>
<td>(39.3)</td>
<td>12</td>
<td>(13.5)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>66</td>
<td>(37.9)</td>
<td>44</td>
<td>(25.3)</td>
</tr>
<tr>
<td>Mean</td>
<td>50.5</td>
<td>(38.6)</td>
<td>28</td>
<td>(19.4)</td>
</tr>
</tbody>
</table>

The finding that generating ideas was low compared to task management was not predicted. The oral component of the story completion tasks requires learners to describe their images in order to determine the correct sequence. Felip accomplished this in three turns. A closer examination of the three turns indicates that Felip and his peer each held the floor for long periods of time to describe their respective set of images. Their approach to the task was unique in this context. The other learners typically took turns after describing one image. These findings indicate that Felip is able to engage in sustained conversations in the target language. Example 14, identified during the oral component, exemplifies Felip’s ability to maintain the floor and provide detailed and accurate descriptions of the images:

Example 14: Generating ideas in the L3 during the story completion task

22 Felip: Ok, curieusement, mon première image je crois que c’est la famille de Marie et elle est petite mais en parlant des articles sportifs il y a beaucoup de articles comme les raquettes, ballons, ils sont tous dans la a la table et ils sont en train de manger des poissons des fruits et un comment se dire un jarra?
Ok, ironically, my first image, I think that it’s Marie’s family and she is small and talking about sport gear and there are many objects like rackets, balls, and they are all at the table and they are eating fish, fruit, and how do we say *pitcher*?

23  Caroline:  E…. un pichet  
[ E… a *pitcher*]

24  Felip:  Et ils sont aussi un pichet d’eau. E… la deuxième image c’est Marie avec une nutritionniste et avec la nutritionniste est en train de montrer a Marie ce qu’il doit manger et ce qu’il ne doit manger pas e… ne peut comme  
[And they have a pitcher of water. E… the second image it’s Marie with a nutritionist and with the nutritionist she is showing Marie what she should eat and what she shouldn’t eat… like]

In sum, the results suggest that Felip had the necessary resources to complete the task in the target language and that the learners’ approach to the task, rather than the task itself, may also impact the specific mediating functions of language.

For Marta, the analysis led to the identification of four mediating functions common to both components of the task: (1) vocabulary deliberations, (2) generating ideas, (3) grammar deliberation, and (4) task management. Although the frequency for each function differed across the two components, overall the findings indicate that during the story completion tasks, the primary functions were generating ideas and vocabulary deliberations, as illustrated in Table 22.
Table 22: Specific L1/L3 mediating functions for the story completion task – Marta

<table>
<thead>
<tr>
<th>Oral component</th>
<th>Vocabulary</th>
<th>Generate ideas</th>
<th>Task manage</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>8</td>
<td>(9.9)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>9</td>
<td>(12.5)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>8.5</td>
<td>(11.2)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>15</td>
<td>(18.5)</td>
<td>24</td>
<td>(29.6)</td>
</tr>
<tr>
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<td>10</td>
<td>(13.9)</td>
<td>14</td>
<td>(19.4)</td>
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<tr>
<td>Mean</td>
<td>12.5</td>
<td>(16.2)</td>
<td>19</td>
<td>(24.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Written component</th>
<th>Generate ideas</th>
<th>Vocabulary</th>
<th>Grammar</th>
<th>Task manage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>3</td>
<td>(3.3)</td>
<td>8</td>
<td>(8.6)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>9</td>
<td>(5.1)</td>
<td>16</td>
<td>(9.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>6</td>
<td>(4.2)</td>
<td>12</td>
<td>(8.8)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>25</td>
<td>(26.9)</td>
<td>15</td>
<td>(16.2)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>69</td>
<td>(38.9)</td>
<td>14</td>
<td>(7.9)</td>
</tr>
<tr>
<td>Mean</td>
<td>47</td>
<td>(32.9)</td>
<td>14.5</td>
<td>(12.1)</td>
</tr>
</tbody>
</table>

Similar to her task performance data during the decision-making task, the analysis uncovered interesting patterns of L1 and L3 mediation. Overall, Marta relied almost exclusively on the L3 to generate ideas during the oral (25%) and the written components (33%). Unlike her performance during the decision-making task, she relied more heavily on her L3 for task management (16%); however, during the written component, the L1 was also used for task management (6%). Unlike her peers, there is stronger evidence that vocabulary deliberation was mediated via both the L1 (11%) and L3 (16%). Finally, the analysis shows that L1 mediation tended to increase over time for a majority of the functions: at Time 2, a higher percentage of L1 was observed.

The results for Paco, presented in Table 23, show that the primary functions during the first component included task management (38%) and generating ideas (31%). Similar to David, there was no evidence of grammar deliberations during the oral component. During the second
component, the primary functions included generating ideas (28%), vocabulary deliberations (27%), and, to a lesser extent, task management (18%) and grammar deliberations (12%).

Table 23: Specific L1/L3 mediating functions for the story completion task – Paco

<table>
<thead>
<tr>
<th>Oral component</th>
<th>Task manage</th>
<th>Generate ideas</th>
<th>Vocabulary</th>
<th>Elicit info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>1 – L1</td>
<td>2 (3.3)</td>
<td>3 (5.0)</td>
<td>0 (0.0)</td>
<td>2 (3.3)</td>
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<tr>
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<td>5 (7.2)</td>
<td>0 (0.0)</td>
<td>2 (2.8)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>3.5 (5.3)</td>
<td>1.5 (2.5)</td>
<td>1 (1.4)</td>
<td>1 (1.7)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>16 (26.7)</td>
<td>18 (30.0)</td>
<td>8 (13.3)</td>
<td>0 (0.0)</td>
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<tr>
<td>2 – L3</td>
<td>26 (37.7)</td>
<td>18 (26.0)</td>
<td>3 (4.3)</td>
<td>7 (10.1)</td>
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<tr>
<td>Mean</td>
<td>21 (32.2)</td>
<td>18 (28.0)</td>
<td>5.5 (8.8)</td>
<td>3.5 (5.1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Written component</th>
<th>Generate ideas</th>
<th>Vocabulary</th>
<th>Task manage</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
</tr>
<tr>
<td>1 – L1</td>
<td>6 (7.2)</td>
<td>12 (14.5)</td>
<td>4 (4.8)</td>
<td>3 (3.6)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>3 (8.6)</td>
<td>4 (11.5)</td>
<td>8 (22.9)</td>
<td>1 (2.9)</td>
</tr>
<tr>
<td>Mean</td>
<td>4.5 (7.9)</td>
<td>8 (13.0)</td>
<td>6 (13.9)</td>
<td>2 (3.3)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>21 (25.3)</td>
<td>13 (15.7)</td>
<td>2 (2.4)</td>
<td>8 (9.6)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>5 (14.3)</td>
<td>4 (11.4)</td>
<td>2 (5.7)</td>
<td>3 (8.6)</td>
</tr>
<tr>
<td>Mean</td>
<td>13 (19.8)</td>
<td>8.5 (13.6)</td>
<td>2 (4.1)</td>
<td>5.5 (9.1)</td>
</tr>
</tbody>
</table>

Similar to Marta, the analysis uncovered unique patterns of L1 and L3 mediation. Overall, when generating ideas, Paco relied primarily on L3 mediation (28%) although there is evidence that Paco also relied on L1 mediation during the written component for this function. In turn, language patterns for task management and vocabulary deliberations differed across the two components. During the oral component, he used L3 mediation for task management (32%) and vocabulary deliberations (9%). To exemplify, Example 15, taken from the oral component of the story completion task, shows Paco and his peer working on sequencing their images. Turns 25, 27, and 29 in the next excerpt exemplify the sequencing process via the L3.

Example 15: L3 during the story completion task for task management

25  Paco:  Ok. Donc sera, ton première la première
          [Ok. So it would be your first image my first image.]
26  Janet: Aha
Later, during the written component, the results show that turns that included task management were mediated via the L1 (14%). Example 16, from the written component, illustrates L1 mediation for task management. In turn 31, Paco suggested making a list of what they should include in the written excerpt before writing, a suggestion that he made via the L1. In turn 33, to generate ideas, Paco turns to the L3.

Example 16: *L1 during the story completion task*

31 Paco: O sea, hay que hacer una lista y así es más fácil. 
[Like, we need to make a list and that way it’s easier.]
32 Janet: Con razón nos dio una hoja este 
[That’s why she gave us a sheet.]
33 Paco: Des poissons, des ananas, des pommes, des grapes↑
[Some fish, pineapple, apples, and grapes]
deliberations). A larger amount of L1 mediation was, however, identified during the written components which suggests that task modality may impact the mediating functions and the language patterns.

4.2.2.5 Text reconstruction task: General patterns of L1, L2, and L3 mediation

Similar to the previous tasks, the findings for the text reconstruction task suggest that the learners rely on the L3 to complete the task but that the individual learners’ data indicates distinct patterns. Table 24 presents the number of turns (n) and the percentages (%) of L1-monolingual turns, L1-bilingual turns, L2-bilingual, L3-monolingual, and L3-bilingual turns for the four focal participants. The results show that once again David and Felip rely almost exclusively on the target language to complete the task. During the reconstruction components, the mean percentages of L3-monolingual use for David were 90% and during the comparing components, 76%. In the case of Felip, the results are similarly distributed across both components: 90% and 86%. Marta and Paco relied less on the L3; for instance, Marta used the L3-monolingual for 47% of the turns and L3-bilingual for 11% of the turns. Similar distributions were identified during the comparing components: 52% L3-monolingual and 6% L3-bilingual. Paco relied on the L3-monolingual for 53% of the turns and L3-bilingual turns for 5% of the turns. Unlike Marta, during the comparing component, Paco relied on L3 mediation more frequently (85%).
Table 24: *Global patterns of L1, L2, and L3 mediation for the text reconstruction task*

<table>
<thead>
<tr>
<th></th>
<th>L1-mono</th>
<th>L1-bi</th>
<th>L2</th>
<th>L3-mono</th>
<th>L3-bi</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Text reconstructing</strong></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>David: 1</td>
<td>1 (0.8)</td>
<td>1 (0.8)</td>
<td>1 (0.8)</td>
<td>108 (90.8)</td>
<td>5 (4.2)</td>
<td>3 (2.5)</td>
</tr>
<tr>
<td>David: 2</td>
<td>3 (1.6)</td>
<td>2 (1.1)</td>
<td>2 (1.1)</td>
<td>164 (89.6)</td>
<td>7 (3.8)</td>
<td>5 (2.7)</td>
</tr>
<tr>
<td>Felip: 1</td>
<td>5 (2.9)</td>
<td>1 (0.6)</td>
<td>0 (0.0)</td>
<td>155 (91.2)</td>
<td>3 (1.8)</td>
<td>6 (3.5)</td>
</tr>
<tr>
<td>Felip: 2</td>
<td>3 (2.1)</td>
<td>1 (0.7)</td>
<td>0 (0.0)</td>
<td>128 (89.5)</td>
<td>3 (2.1)</td>
<td>8 (5.6)</td>
</tr>
<tr>
<td>Marta: 1</td>
<td>35 (23.5)</td>
<td>22 (14.8)</td>
<td>0 (0.0)</td>
<td>62 (41.6)</td>
<td>15 (10.1)</td>
<td>15 (10.1)</td>
</tr>
<tr>
<td>Marta: 2</td>
<td>21 (17.1)</td>
<td>20 (16.3)</td>
<td>0 (0.0)</td>
<td>64 (52.0)</td>
<td>15 (12.2)</td>
<td>3 (2.4)</td>
</tr>
<tr>
<td>Paco: 1</td>
<td>20 (18.0)</td>
<td>4 (3.6)</td>
<td>1 (0.9)</td>
<td>77 (69.4)</td>
<td>5 (4.5)</td>
<td>4 (3.6)</td>
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<tr>
<td>Paco: 2</td>
<td>26 (38.2)</td>
<td>6 (8.8)</td>
<td>0 (0.0)</td>
<td>25 (36.8)</td>
<td>3 (4.4)</td>
<td>8 (11.8)</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
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<td>57</td>
<td>4</td>
<td>783</td>
<td>56</td>
<td>52</td>
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<tr>
<td><strong>Mean</strong></td>
<td>14.3 (13.0)</td>
<td>7.1 (5.8)</td>
<td>0.5 (0.4)</td>
<td>97.9 (70.1)</td>
<td>7.0 (5.4)</td>
<td>6.5 (5.3)</td>
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<tr>
<td><strong>SD</strong></td>
<td>12.9 (13.6)</td>
<td>8.8 (6.6)</td>
<td>0.8 (0.5)</td>
<td>49.0 (23.5)</td>
<td>5.1 (3.7)</td>
<td>4.0 (3.7)</td>
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<table>
<thead>
<tr>
<th></th>
<th>n (%)</th>
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<tbody>
<tr>
<td><strong>Comparing</strong></td>
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<tr>
<td>David: 1</td>
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<td>0 (0.0)</td>
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<tr>
<td>David: 2</td>
<td>9 (22.5)</td>
<td>2 (5.0)</td>
<td>1 (2.5)</td>
<td>26 (65.0)</td>
<td>1 (2.5)</td>
<td>0 (0.0)</td>
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<tr>
<td>Felip: 1</td>
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<td>0 (0.0)</td>
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<td>1 (3.1)</td>
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<tr>
<td>Felip: 2</td>
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<td>0 (0.0)</td>
<td>52 (89.7)</td>
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<td>1 (1.7)</td>
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<tr>
<td>Marta: 1</td>
<td>12 (29.3)</td>
<td>2 (4.9)</td>
<td>0 (0.0)</td>
<td>23 (56.1)</td>
<td>3 (7.3)</td>
<td>3 (7.3)</td>
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</tr>
<tr>
<td>Marta: 2</td>
<td>15 (29.4)</td>
<td>5 (9.8)</td>
<td>0 (0.0)</td>
<td>24 (47.1)</td>
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<td>5 (9.8)</td>
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<td>Paco: 1</td>
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<td>0 (0.0)</td>
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<tr>
<td><strong>Sum</strong></td>
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<td>13</td>
<td>1</td>
<td>303</td>
<td>13</td>
<td>19</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>6.6 (14.4)</td>
<td>1.6 (3.4)</td>
<td>0.1 (0.3)</td>
<td>37.9 (74.2)</td>
<td>1.6 (3.3)</td>
<td>2.4 (4.8)</td>
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</tr>
<tr>
<td><strong>SD</strong></td>
<td>4.8 (10.9)</td>
<td>1.6 (3.3)</td>
<td>0.4 (0.9)</td>
<td>15.2 (15.9)</td>
<td>1.1 (2.1)</td>
<td>1.5 (3.1)</td>
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</tr>
</tbody>
</table>

4.2.2.6 Text reconstruction task: Specific mediating function of the L1 and L3

The findings presented in Table 25 indicate that David seldom used the L1 to complete the task although there was some evidence of L1 mediation during the comparing component for task management purposes (9%). Thus, similar to his performance during other tasks, David relied primarily on L3 mediation.
Table 25: Specific L1/L3 mediating functions for the text reconstruction task – David

<table>
<thead>
<tr>
<th></th>
<th>Reconstructing component</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grammar</td>
<td>Reading</td>
<td>Task Manage</td>
<td>Meaning</td>
</tr>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>1 (0.8)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>3 (1.6)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>2 (1.2)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>79 (66.4)</td>
<td>19 (16.0)</td>
<td>7 (5.9)</td>
<td>3 (2.5)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>127 (71.0)</td>
<td>19 (10.4)</td>
<td>5 (2.7)</td>
<td>7 (3.8)</td>
</tr>
<tr>
<td>Mean</td>
<td>103 (68.4)</td>
<td>19 (13.2)</td>
<td>6 (4.3)</td>
<td>5 (3.2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Comparing component</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compare</td>
<td>Grammar</td>
<td>Explanation</td>
<td>Task Manage</td>
</tr>
<tr>
<td>Time</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0 (0.0)</td>
<td>1 (1.4)</td>
<td>0 (0.0)</td>
<td>2 (2.8)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>1 (2.5)</td>
<td>2 (5.0)</td>
<td>0 (0.0)</td>
<td>6 (15.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>0.5 (1.3)</td>
<td>1.5 (3.2)</td>
<td>0 (0.0)</td>
<td>4 (8.9)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>16 (22.5)</td>
<td>11 (14.1)</td>
<td>22 (31.0)</td>
<td>9 (12.7)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>17 (42.5)</td>
<td>7 (17.5)</td>
<td>2 (5.0)</td>
<td>1 (2.5)</td>
</tr>
<tr>
<td>Mean</td>
<td>16.5 (32.5)</td>
<td>9 (16.5)</td>
<td>12 (18.0)</td>
<td>5 (7.6)</td>
</tr>
</tbody>
</table>

During the first component of the task, L3-monolingual was used primarily for grammar deliberations (68%). The secondary function was reading (13%). Reading the text aloud enabled David to gain control of the task and orient the discussion towards resolving the gaps in the text. Three additional functions were identified in the second component, namely, comparing (33%), grammar deliberations (17%), and explanations (18%). In the interactions, the latter two functions complemented one another. For instance, during the comparing component, David would read one of the versions of the text with the purpose of identifying discrepancies with the other text. Subsequently, David did one of two things: he either discussed the errors to resolve his doubt or he provided a grammatical explanation. Although the two categories (i.e., grammar deliberation and grammar explanation) both address grammar, a distinction was made because learners were explicitly instructed to explain the errors during the comparing component. In Line 34 of Example 17, David reads the text aloud and in Line 36, he indicates that they are wrong. In
Line 38, David shows the error by directing Janet’s attention to the error. Only in Line 42 does David provide an explicit grammatical explanation.

Example 17: *Alternating between grammar deliberation and grammar explanation*

34 David: Les activités, nous les avons choisies.
[The activities, we have chosen them.]

35 Janet: ¿Qué?
[What?]

36 David: C’est faux… c’est incorrect
[It’s wrong… it’s incorrect.]

37 Janet: Ah, l’accordance
[Ah, the agreement]

38 David: L’accordance… C’est ici. Tu l’écris ou je…
[The agreement… It’s here. You write or I…]

39 Janet: Como quieras!
[As you wish!]

40 David: Pourquoi… On doit écrire pourquoi. À côté de la phrase.
[Why… We must write why. Next to the sentence.]

41 Janet: Ah ok, parce que ¿Cómo se escribe l’accordance?
[Ah ok, because how do we write agreement?]

42 David: L’accord l’apostrophe a-c-c-o-r-d à parce que l’accord est… au féminin et pluriel doit de
[The agreement (spells) because the agreement is… it’s feminine and plural]

Similar to David, results in Table 26 illustrate that Felip mediated the completion of the task via the L3. The analysis indicates that the primary function for which Felip used L3 mediation was grammar deliberations (67%). There is also evidence of reading (25%). During the second component of the task, the primary functions of the L3 were to compare the two texts (29%) and task management (24%). In Felip’s interactions, these two functions frequently complemented one another: after comparing one structure, Felip commented on the accuracy of the text. Moreover, there is evidence that Felip used the L3 to provide explicit explanations for the discrepancies (15%) and to a lesser extent, for grammar deliberations (9%).
Table 26: Specific L1/L3 mediating functions for the text reconstruction task – Felip

<table>
<thead>
<tr>
<th>Time</th>
<th>Reconstructing component</th>
<th>Comparing component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grammar</td>
<td>Reading</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>1 (0.7)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>0.5 (0.4)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>114 (67.1)</td>
<td>17 (10.0)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>96 (67.1)</td>
<td>19 (13.3)</td>
</tr>
<tr>
<td>Mean</td>
<td>105 (67.1)</td>
<td>18 (11.6)</td>
</tr>
</tbody>
</table>

An important difference was identified during the comparing components between Times 1 and 2. For task management functions, a difference of 22% was identified and for explicit explanations, a difference of 20% was identified. These findings are attributed to their success with the task such that Aurora and Felip did not engage in grammar deliberations given that only six errors were found between their text and the reconstructed version. Instead, the majority of their turns during the comparing component were comparing (29%) followed by task management (24%). This included comments about the quality of their work. Example 18 shows how in Line 43, Felip read the text *(has fallen)* and acknowledges the accuracy *(yes)*. In Line 45, he says ‘excellent’, ‘yes it’s good’, and ‘very good’ after each accurate reconstruction. These two more proficient learners accurately reconstructed the text during the first component and spent more time commenting on the quality of their work (i.e., task management).
Example 18: Comments on the quality of their work during comparing component

43 Felip: Est tombé, oui. Ok premièremenent, j’aimerais
[Has fallen, yes. Ok first of all, I would like]

44 Aurora: Bien
[Good]

45 Felip: Excellent répondiez, oui c’est bien. À quelques, très bien, questions.
[Excellent! To answer, yes, it’s good. To some, very good, questions.]

Table 27 presents the results for Marta. Similar to her peers, the most frequent function was grammar deliberations. However, unlike David and Felip, grammar deliberations were produced via the L3 (41%) and the L1 (24%). A close examination of the L3 and L1 patterns revealed that 9% of the L3 turns were L3-bilingual and 12% were L1-bilingual, an indication that grammar deliberations were mediated via both languages. During the second component, the primary functions were comparing the two versions of the text (55%) followed by task management (17%).

<table>
<thead>
<tr>
<th>Time</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – L1</td>
<td>38</td>
<td>(25.6)</td>
<td>0</td>
<td>(0.0)</td>
<td>10</td>
<td>(6.7)</td>
<td>3</td>
<td>(2.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>28</td>
<td>(22.8)</td>
<td>0</td>
<td>(0.0)</td>
<td>6</td>
<td>(4.8)</td>
<td>3</td>
<td>(2.4)</td>
</tr>
<tr>
<td>Mean</td>
<td>33</td>
<td>(24.2)</td>
<td>0</td>
<td>(0.0)</td>
<td>8</td>
<td>(5.8)</td>
<td>3</td>
<td>(2.2)</td>
</tr>
<tr>
<td>1 – L3</td>
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<td>(37.6)</td>
<td>13</td>
<td>(8.7)</td>
<td>3</td>
<td>(2.0)</td>
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<td>(1.3)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>54</td>
<td>(43.9)</td>
<td>22</td>
<td>(17.9)</td>
<td>1</td>
<td>(0.8)</td>
<td>1</td>
<td>(0.8)</td>
</tr>
<tr>
<td>Mean</td>
<td>55</td>
<td>(40.8)</td>
<td>17.5</td>
<td>(13.3)</td>
<td>2</td>
<td>(1.4)</td>
<td>1.5</td>
<td>(1.1)</td>
</tr>
</tbody>
</table>

Compared component

<table>
<thead>
<tr>
<th>Time</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – L1</td>
<td>1</td>
<td>(2.4)</td>
<td>7</td>
<td>(17.1)</td>
<td>3</td>
<td>(7.3)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>9</td>
<td>(17.6)</td>
<td>7</td>
<td>(13.7)</td>
<td>2</td>
<td>(3.9)</td>
<td>2</td>
<td>(4.0)</td>
</tr>
<tr>
<td>Mean</td>
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<td>(10.0)</td>
<td>7</td>
<td>(15.4)</td>
<td>2.5</td>
<td>(5.6)</td>
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<tr>
<td>1 – L3</td>
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<td>(51.2)</td>
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<td>(2.4)</td>
<td>0</td>
<td>(0.0)</td>
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<td>(9.7)</td>
</tr>
<tr>
<td>2 – L3</td>
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<td>(0.0)</td>
<td>4</td>
<td>(7.9)</td>
<td>1</td>
<td>(2.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>20.5</td>
<td>(45.2)</td>
<td>0.5</td>
<td>(1.2)</td>
<td>2</td>
<td>(4.0)</td>
<td>2.5</td>
<td>(5.9)</td>
</tr>
</tbody>
</table>
Overall, there is evidence that Marta’s L1 and L3 served distinct mediating functions: L3 mediation was used to compare the two versions of the text and L1 mediation was used for task management. Lines 48 and 52 from Example 19 show how Marta comments on the quality of their work via the L1:

Example 19: *Comments on the quality of their work via the L1*

46 Marta: Anne télécharg uh…
[Anne was downloading ah…]
47 Thomas: Télé…
[Down…]
48 Marta: Un film quand, ah sí cierto, Anna este bajaba un film cuando soudainement est apparu …
[A movie when, ah yes of course, Anna was downloading a movie *when* suddenly it appeared]
49 Thomas: aha, à l’écran
[Aha, on the screen]
50 Marta: Aparecido
[Appeared]
51 Thomas: Creo que si íbamos a poner à l’écran, ¿No?
[I think that we were going to put on the screen, right?]
52 Marta: Creo que sí, se nos olvido. Ah eso sí, lo iba a poner perdón. Vos logiciels
[I think so, we forgot. Ah yes, we were going to put it, sorry. Your software]

The results for Paco are presented in Table 28. During the reconstructing component of the task, the dominant function was grammar deliberations (52%). Secondary functions included reading the text (11%), task management (11%), and meaning deliberations (9%). During the comparing component, the primary function was comparing the two versions (70%). Other functions included task management (14%) and grammar deliberations (10%).
Table 28: *Specific L1/L3 mediating functions for the text reconstruction task – Paco*

<table>
<thead>
<tr>
<th>Reconstructing component</th>
<th>Grammar</th>
<th>Reading</th>
<th>Task manage</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>17</td>
<td>(15.3)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>11</td>
<td>(16.2)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>14</td>
<td>(15.8)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>50</td>
<td>(45.0)</td>
<td>14</td>
<td>(12.6)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>19</td>
<td>(27.9)</td>
<td>6</td>
<td>(8.8)</td>
</tr>
<tr>
<td>Mean</td>
<td>34.5</td>
<td>(36.5)</td>
<td>10</td>
<td>(10.7)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comparing component</th>
<th>Comparing</th>
<th>Task manage</th>
<th>Grammar</th>
<th>Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>4</td>
<td>(6.8)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>1</td>
<td>(2.0)</td>
<td>3</td>
<td>(6.1)</td>
</tr>
<tr>
<td>Mean</td>
<td>0.5</td>
<td>(1.0)</td>
<td>3.5</td>
<td>(6.5)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>28</td>
<td>(47.5)</td>
<td>6</td>
<td>(10.2)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>35</td>
<td>(71.4)</td>
<td>2</td>
<td>(4.1)</td>
</tr>
<tr>
<td>Mean</td>
<td>31.5</td>
<td>(59.5)</td>
<td>4</td>
<td>(7.2)</td>
</tr>
</tbody>
</table>

To complete the task, Paco relied on the L1 and the L3. As with Marta, there is strong evidence that each language served overlapping functions. For instance, although grammar deliberations were mediated primarily via the L3 (37%), L1 mediation accounted for 16% of the turns. During the comparing component, the L3 was used for comparing (60%) and for some grammar deliberations (9%). In sum, for this task, Paco relied on both his native language and the target language to interact with his peer and to satisfy the demands of the task.

Unlike his peers, Paco’s task performances differed over time. At Time 2, there was less evidence of grammar deliberations in comparison to his peers and he only produced 68 turns during the reconstructing component: the mean was 129 turns. Given that they spent an equal amount of time on task as their peers, I examined their task performance transcript and found frequent silences and instances where they worked independently. Example 20, taken from the reconstruction component, illustrates long periods of silence that were identified. This impacted the patterns of the specific mediating functions. Line 56 exemplifies that Paco and Pedro worked
in parallel since Paco questioned Pedro’s use of the verb to have; however, prior to this, they did not talk about that target structure.

Example 20: Silences during task performance

53 Pedro: Anne j’aimerais… (34 seconds) Esto sería el futuro, ¿No?
[Anne, I would like… (34 seconds) That would be in the future, right?]
54 Paco: Me gustaría…sí
[I would like… yes]
55 Pedro: Me gustaría que me respondieras
[I would like for you to answer]
56 Paco: Aha (50 secondes) Pero porque ont?
[Aha (50 seconds) But why they have?]
57 Pedro: Porque dijo que cuando sea être y el verbo lo tienes que poner…
[Because she said that when it’s to be and the verb you need to put it…]
58 Paco: Pero ont… Si pero ont es para plural, ¿No? Más bien seria a été.
[But to have…. Yes but to have is for plural, right? It would be has been.]

Finally, there were 25 errors identified in Paco and Pedro’s reconstructed text. Despite this number, grammar explanations only accounted for 4% of the turns. Thus, unlike his peers, Paco did not provide explanations during the second component and instead limited the turns to comparing the two texts. The findings are indicative that Paco did complete the task; however, he approached the task in a way that differed from his peers. This provides further evidence that tasks are behavioral blueprints and that each learner will engage in the activity in her/his own idiosyncratic way.

In summary, although the quantity of L1 and L3 mediation differed between the four focal participants, the results suggest that the specific mediating functions were impacted by, among other things, task type. The text reconstruction task draws the learners’ attention to form. Furthermore, in light of Paco’s data, other factors may impact the mediating functions such as learner-learner collaboration.
4.2.2.7 Dictogloss task: General patterns of L1, L2, and L3 mediation

To present the patterns of language use during the dictogloss tasks, the number of turns (n) and the percentages (%) of L1-monolingual turns, L1-bilingual turns, L2-bilingual, L3-monolingual, and L3-bilingual for each focal participant are presented in Table 29. The analysis of task performance indicates a clear picture of L3 use for the four focal participants. During the reconstructing components, 78% of the turns were L3-monolingual and during the comparing component, 77% were L3-monolingual. The results indicate that although Felip and David used the L3 more frequently, the difference between them and their peers was less marked than in previous tasks. For instance, David and Felip’s results show that during the reconstructing components, the percentage of L3-monolingual use was 86% and 92% respectively and for Marta and Paco, 59% and 77%. During the comparing component, however, Paco and Marta relied less on the L3 than their peers.
4.2.2.8 Dictogloss task: Specific mediating function of the L1 and L3

The results presented in Table 30 provide additional evidence that David seldom uses the L1 during collaborative tasks. The analysis of L3 mediation reveals that during the reconstructing component the primary function was generating ideas (44%). The secondary functions included grammar deliberations (19%) and vocabulary deliberations (16%). During the second component of the dictogloss task, the primary function included comparing the two versions of the text (60%). In addition, the L3 was used similarly for grammar deliberations (10%), task management (8%), and vocabulary deliberations (8%). Similar to the text
reconstruction task, David successfully reconstructed the aural text and was more successful at Time 2. As a result, at Time 2, grammar deliberations decreased and task management increased since David commented on the quality of the task.

| Table 30: Specific L1/L3 mediating functions for the dictogloss task – David |
|---------------------|---------------------|---------------------|---------------------|---------------------|
|                     | Generate ideas | Grammar | Vocabulary | Task manage |
| Reconstructing component | Time n (%) | n (%) | n (%) | n (%) |
| 1 – L1               | 1 (0.6) | 0 (0.0) | 1 (0.6) | 1 (0.6) |
| 2 – L1               | 2 (1.0) | 4 (1.8) | 2 (0.9) | 1 (0.5) |
| Mean                 | 1.5 (0.8) | 2 (0.9) | 1.5 (0.8) | 0.5 (0.3) |
| 1 – L3               | 72 (46.8) | 25 (16.2) | 33 (21.4) | 5 (3.2) |
| 2 – L3               | 88 (41.1) | 46 (21.5) | 23 (10.7) | 16 (7.5) |
| Mean                 | 80 (44.0) | 35.5 (18.9) | 28 (16.1) | 10.5 (5.4) |
| Comparing component | Time n (%) | n (%) | n (%) | n (%) |
| 1 – L1               | 1 (2.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| 2 – L1               | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Mean                 | 0.5 (1.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| 1 – L3               | 30 (69.8) | 6 (14.0) | 2 (4.7) | 3 (7.0) |
| 2 – L3               | 35 (50.7) | 4 (5.8) | 8 (11.6) | 6 (8.7) |
| Mean                 | 32.5 (60.3) | 5 (9.9) | 5 (8.2) | 4.5 (7.9) |

Similar to David, Felip relies almost exclusively on the L3, as illustrated in Table 31. During the reconstruction component, the L3 served two primary functions: generating ideas (39%) and grammar deliberations (25%). Two additional functions were identified: vocabulary deliberations (14%) and task management (12%). Similar to David, during the comparing component, the primary function was comparing (43%). The other functions of the L3 were similarly distributed and included task management (16%), grammar explanations (13%), and vocabulary deliberations (12%).
Table 31: Specific L1/L3 mediating functions for the dictogloss task – Felip

<table>
<thead>
<tr>
<th>Time</th>
<th>Generate ideas</th>
<th>Grammar</th>
<th>Vocabulary</th>
<th>Task manage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>2 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>0</td>
<td>(0.0)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>39</td>
<td>(41.5)</td>
<td>23</td>
<td>(24.5)</td>
</tr>
<tr>
<td>2 – L3</td>
<td>66</td>
<td>(35.8)</td>
<td>46</td>
<td>(25.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>52.5</td>
<td>(38.7)</td>
<td>34.5</td>
<td>(24.8)</td>
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</table>

Comparing component

<table>
<thead>
<tr>
<th>Time</th>
<th>Compare</th>
<th>Task manage</th>
<th>Explanation</th>
<th>Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 – L1</td>
<td>0</td>
<td>(0.0)</td>
<td>1</td>
<td>(3.4)</td>
</tr>
<tr>
<td>2 – L1</td>
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<td>(0.0)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>Mean</td>
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<td>(0.0)</td>
<td>0.5</td>
<td>(1.7)</td>
</tr>
<tr>
<td>1 – L3</td>
<td>12</td>
<td>(42.3)</td>
<td>4</td>
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<tr>
<td>2 – L3</td>
<td>30</td>
<td>(44.8)</td>
<td>12</td>
<td>(17.9)</td>
</tr>
<tr>
<td>Mean</td>
<td>21</td>
<td>(43.1)</td>
<td>8</td>
<td>(15.9)</td>
</tr>
</tbody>
</table>

During the comparing component, learners were instructed to provide a grammatical explanation for their errors, which Felip and his peer did at Time 1. In Example 21, Felip, after having identified an error in Line 59, provides an explanation in Lines 61 and 65:

Example 21: Providing grammatical explanations

59 Felip: in...te...res...sés
[In...te...res...ted]

60 Marta: Nous a, arghh pues si, nous a intéressés, Tulum⁹
[We have argh of course, we were interested, Tulum]

61 Felip: Oui, c’est le C.O.D.... Nous a intéressés quoi?
[Yes, it’s the direct object... We were interested by what?]

62 Marta: Interessés
[Interested]

63 Felip: nous [avons
[We have]

64 Marta: A nosotros]
[Us]

65 Felip: Oui, nous a intéressée quoi? Tulum, et c’est avant
[Yes, we were interested by what? Tulum, and it’s placed before]

⁹ Name of archeological site in Mexico
Results for Marta’s performance are presented in Table 32. During the first component of the task, the dominant function was generating ideas (36%) followed by grammar deliberations (20%), vocabulary deliberations (14%), and task management (13%). During the comparing component, the primary function was comparing the two versions of the text (45%). Similar to the previous component, Marta also discussed task management (11%), vocabulary deliberations (10%), and grammar deliberations (7%). The analysis shows patterns of L3 mediation for generating ideas (32%) and comparing (42%) whereas L1 mediation and L3 mediation were in overlapping distribution for task management and vocabulary deliberations. Overall, there was no evidence that Marta provided grammatical explanations for the discrepancies between the two versions of the text.

Table 32: Specific L1/L3 mediating functions for the dictogloss task – Marta

<table>
<thead>
<tr>
<th>Time</th>
<th>Generate ideas</th>
<th>Grammar</th>
<th>Vocabulary</th>
<th>Task manage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 - L1</td>
<td>3</td>
<td>(3.6)</td>
<td>0</td>
<td>(0.0)</td>
</tr>
<tr>
<td>2 - L1</td>
<td>5</td>
<td>(5.0)</td>
<td>6</td>
<td>(6.0)</td>
</tr>
<tr>
<td>Mean</td>
<td>4</td>
<td>(4.3)</td>
<td>3</td>
<td>(3.0)</td>
</tr>
<tr>
<td>1 - L3</td>
<td>28</td>
<td>(33.3)</td>
<td>21</td>
<td>(25.0)</td>
</tr>
<tr>
<td>2 - L3</td>
<td>31</td>
<td>(30.7)</td>
<td>9</td>
<td>(8.9)</td>
</tr>
<tr>
<td>Mean</td>
<td>29.5</td>
<td>(32.0)</td>
<td>15</td>
<td>(17.0)</td>
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</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Comparing</th>
<th>Task manage</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 - L1</td>
<td>1</td>
<td>(3.7)</td>
<td>2</td>
<td>(7.4)</td>
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<td>(2.2)</td>
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<tr>
<td>Mean</td>
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<td>(3.0)</td>
<td>2</td>
<td>(4.8)</td>
</tr>
<tr>
<td>1 - L3</td>
<td>13</td>
<td>(48.1)</td>
<td>3</td>
<td>(11.1)</td>
</tr>
<tr>
<td>2 - L3</td>
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<td>(35.6)</td>
<td>1</td>
<td>(1.1)</td>
</tr>
<tr>
<td>Mean</td>
<td>22.5</td>
<td>(41.9)</td>
<td>2</td>
<td>(6.1)</td>
</tr>
</tbody>
</table>

Table 33 presents the findings of Paco’s performance during the dictogloss tasks. Similar to his peers, the two primary functions included generating ideas (42%) and grammar deliberations (23%) followed by task management (14%) and vocabulary deliberations (11%).
During the comparing component, the primary function was comparing the two versions of the text (49%). Overall, there was limited evidence of L1 mediation during either component of the task. Instead, Paco mediated the completion of the tasks primarily via the L3. These findings suggest that Paco can sustain conversations in the target language, at least in certain types of tasks. The discussion chapter presents some potential factors that could explain these findings.

<table>
<thead>
<tr>
<th>Table 33: Specific L1/L3 mediating functions for the dictogloss task – Paco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstructing component</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>n</td>
</tr>
<tr>
<td>1 – L1</td>
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<tr>
<td>2 – L1</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>1 – L3</td>
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<tr>
<td>2 – L3</td>
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<tr>
<td>Mean</td>
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<tr>
<td>n</td>
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<tr>
<td>2 – L1</td>
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<tr>
<td>2 – L3</td>
</tr>
<tr>
<td>Mean</td>
</tr>
</tbody>
</table>

To review, the dictogloss task provides a picture of more consistent language mediation and the specific mediating functions of language during the reconstruction and comparing components of the task. Overall, the dictogloss task engendered the highest percentages of L3 use. Moreover, primary mediating functions of language included generating ideas during the reconstructing component and comparing during the second component. Although some small differences were observed across the four focal participants, there is strong evidence that the dictogloss task encouraged discussions about meaning and form. In the final chapter, I discuss
relevant task features and how the nature of the input could influence the quantity of L1 and L3 use and the specific patterns of language mediation.

4.2.3 Patterns of L2 mediation

The first research question addressed the specific mediating functions of the L1, the L2, and the L3 for the four focal participants as they completed a series of pedagogical tasks during regularly scheduled classes. Given the limited evidence of L2 mediation, in the previous sections I focused exclusively on L1 and L3 mediation. Nonetheless, evidence of L2 mediation was identified for three functions: task management, generating ideas, and vocabulary deliberations. For instance, during David’s task performance, L2 mediation was identified in 26 turns. The most common functions included task management (n=11) (e.g., exclamations), generating ideas (n=7), and vocabulary deliberations (n=6). During Marta’s interactions, 15 turns were identified and the two primary functions were generating ideas (n=6) and vocabulary deliberation (n=5). Felip produced two turns and Paco produced three. Despite the occurrences, the findings suggest that L2 mediation was used for explicit insertion and at times, for implicit insertion. Implicit insertions include instances where learners used an L2 item without requesting help or engaging in an individual lexical search. Example 22 illustrates the former where David first uses the L2 equivalent:

Example 22: *Explicit insertions via the L2 for vocabulary deliberation*

66 Marimar:  Et le dernier image c’est la même fille mais elle est elle était elle est…
[And the last image, it’s the same girl but she is she was she is…]

67 David: Pony tail… Pony tail… ¿Cómo se dice cola?
*[Pony tail… Pony tail… How do we say tail?]*

Other examples suggest that the L2 words were implicit insertions, as illustrated in Example 23:
Example 23: *Implicit insertions via the L2 for vocabulary deliberation*

68 David: Tiens le liquid liquid paper
   [Take the liquid liquid paper]
69 Marimar: Equis David.
   [Whatever David]

In sum, the L2 did not serve a number of mediating functions throughout task performance and was limited to task management, vocabulary deliberation, and generating ideas. In the final chapter, I explore potential social and contextual factors that could have impacted L2 mediation in the present context.

4.2.4 Concluding synopsis of general and specific functions of L1, L2, and L3

In the previous section, the results for the patterns of language mediation and the impact of tasks on the specific mediating functions of the L1 and the L3 were presented. The analysis uncovered several key findings. First, the findings suggest that the task type impacts the amount of L1 and L3 mediation and the specific mediating functions. The task that engendered the most L3 was the dictogloss task. Also, task modality appears to impact L1 and the L3: the writing components led to more L1 mediation than the oral counterparts. In terms of specific functions, the results indicate that all but the text reconstruction task involved generating ideas. The story completion task also involved task management and the dictogloss tasks also included comparing. The text reconstruction task was mostly grammar deliberations. Although the results suggest that task types impact language patterns and the specific mediating functions of language, the findings suggest that pair dynamics as well as proficiency in the target language may also account for the present findings. In chapter 6, I discuss the findings in light of previous studies that examined the impact of task types on language mediation.
4.3 Languaging

The second research question investigated the occurrence and resolution of LREs during four types of collaborative tasks over time. In the present study, LREs are instances where learners discuss a gap in their lexis (lexis-based LREs) and in their grammatical knowledge (form-based LREs). In the first section, I provide a summary of the general findings and continue with a cross-case analysis. After having reported the main findings, I present the detailed results of LREs during each type of task and for each focal participant.

4.3.1 Languaging: Summary and cross-case analysis

The analysis of the occurrence and resolution of LREs provides robust evidence that pedagogical tasks afford learners multiple opportunities to question their language knowledge and talk about their language, evidenced by the production of LREs by each focal participant. To illustrate, Table 34 reports the quantity of lexis-based LREs and form-based LREs (n) and the percentages of LREs (%) that were produced during each task at Time 1, at Time 2, and their combined totals. To examine the role of language, the results are further divided by language patterns: L1-bilingual (L1-B) and L3-bilingual (L3-B).
### Table 34: Global Patterns of LREs for the focal participants

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th></th>
<th>Time 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
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<tr>
<td></td>
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<td>Form</td>
<td>Lexis</td>
<td>Form</td>
<td>Lexis</td>
<td>Form</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Deci-task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>31 (32)</td>
<td>24 (25)</td>
<td>36 (32)</td>
<td>23 (20)</td>
<td>67 (32)</td>
<td>47 (22)</td>
</tr>
<tr>
<td>L1-B</td>
<td>30 (31)</td>
<td>12 (12)</td>
<td>45 (39)</td>
<td>10 (9)</td>
<td>75 (36)</td>
<td>22 (10)</td>
</tr>
<tr>
<td>Total^10</td>
<td>61 (63)</td>
<td>36 (37)</td>
<td>81 (71)</td>
<td>33 (29)</td>
<td>142 (67)</td>
<td>69 (33)</td>
</tr>
<tr>
<td>Story-task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>75 (56)</td>
<td>29 (21)</td>
<td>72 (34)</td>
<td>71 (33)</td>
<td>147 (42)</td>
<td>100 (29)</td>
</tr>
<tr>
<td>L1-B</td>
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<td>44 (21)</td>
<td>25 (12)</td>
<td>73 (21)</td>
<td>27 (8)</td>
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<tr>
<td>Total</td>
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<td>31 (23)</td>
<td>116 (55)</td>
<td>96 (45)</td>
<td>220 (63)</td>
<td>127 (37)</td>
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<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>12 (7)</td>
<td>124 (75)</td>
<td>14 (9)</td>
<td>98 (60)</td>
<td>26 (8)</td>
<td>222 (68)</td>
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<tr>
<td>L1-B</td>
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<td>23 (14)</td>
<td>10 (6)</td>
<td>40 (25)</td>
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<td>63 (19)</td>
</tr>
<tr>
<td>Total</td>
<td>19 (11)</td>
<td>147 (89)</td>
<td>24 (15)</td>
<td>138 (85)</td>
<td>43 (13)</td>
<td>285 (87)</td>
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<td></td>
</tr>
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<td>L3-B</td>
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<td>44 (44)</td>
<td>48 (30)</td>
<td>80 (50)</td>
<td>99 (38)</td>
<td>124 (48)</td>
</tr>
<tr>
<td>L1-B</td>
<td>3 (3)</td>
<td>3 (3)</td>
<td>20 (13)</td>
<td>12 (8)</td>
<td>23 (9)</td>
<td>15 (6)</td>
</tr>
<tr>
<td>Total</td>
<td>54 (54)</td>
<td>47 (47)</td>
<td>68 (43)</td>
<td>92 (58)</td>
<td>122 (47)</td>
<td>139 (53)</td>
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<td>Total</td>
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<td>261 (49)</td>
<td>289 (46)</td>
<td>359 (54)</td>
<td>527 (47)</td>
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<td>72</td>
<td>90</td>
<td>132</td>
<td>155</td>
</tr>
<tr>
<td>SD</td>
<td>35</td>
<td>55</td>
<td>38</td>
<td>43</td>
<td>73</td>
<td>92</td>
</tr>
</tbody>
</table>

In section 4.1, time on task was reported for each task. Although differences between learners for a given task were marginal, the differences across Times 1 and 2 were noticeable. Thus, to gain a better appreciation of the quantity of LREs produced by the focal participants, the total number of LREs per minute was calculated. The results show similar distributions across three of the four tasks. During the story completion tasks and the text reconstruction tasks, the focal participants produced 1.2 LREs per minute and during the dictogloss task, they produced 1.14 LREs per minute. A smaller number of LREs was identified during the decision-making task, namely 0.69 LREs per minute.

Next, the language patterns and the quantity of lexis-based and form-based LREs produced during each type of task were compared. Overall, the L3-B was more frequent; although there is evidence that the focal participants relied on their L1 for LREs. Also, the results

^10 The total (T) percentages may not add up to 100% due to rounding.
show that during the decision-making tasks and the story completion tasks, learners produced a higher percentage of lexis-based LREs: 67% and 63%. During the oral components of the tasks, the focal participants produced fewer LREs, but they focused almost exclusively on lexis. During the written components, both types of LREs were similarly distributed. During the text reconstruction tasks, the majority of the LREs were form-based (87%), and finally, the quantity of lexis-based and form-based LREs was comparable during the dictogloss task: 47% and 53%.

Figure 3 indicates that LREs were similarly distributed at Times 1 and 2. First, lexis-based LREs were more frequent than form-based LREs during the decision-making tasks and the story completion tasks; however, in the latter, the results indicate a 22% decrease in lexis-based LREs. Second, form-based LREs were more frequent during the text reconstructions; third, during the dictogloss tasks, the ratio of lexis-based and form-based LREs was similar although form-based LREs were slightly more frequent at Time 2.

![Figure 3: Cross-task comparison of lexis-based and form-based LREs](image)

The resolution of LREs was also examined. In the present context, four types of resolutions were identified: (a) correctly-resolved: learner-learner (L-L), (b) correctly-resolved: learner-teacher (L-T), (c) incorrectly resolved, (d) unresolved. Table 35 presents the patterns of
resolution for each task type at Time 1, at Time 2, as well as the combined totals. To calculate the percentages, the total number for one type of resolution was divided by the total number of LREs for that task.

In a first instance, the global patterns were examined. Results show a higher percentage of learner-learner resolutions: 61%. This is followed by incorrect resolutions (17%), teacher-learner resolutions (14%), and unresolved (8%).

The results for the individual tasks suggest that patterns of learner-learner and learner-teacher resolutions are impacted by task type. For instance, during the text reconstruction and the dictogloss tasks, learner-learner resolutions accounted for 63% and 70% of the LREs; during the decision-making task, they accounted for 58% of the resolutions and during the story completion task, 53%. In the data, there was evidence that learners had some difficulties to resolve LREs. One source of evidence comes from the LREs that included the input from the teacher. During the decision-making tasks and the story completion tasks, teacher-learner resolutions accounted for 15% and 24% of the LREs, respectively; during the text reconstruction tasks and the dictogloss tasks, they accounted for only 10% and 6% of the LREs. The second source of evidence stems from the incorrectly resolved LREs and the unresolved LREs. The percentages ranged between 27% during the decision-making tasks; 26% during the text reconstruction, and 23% during the story completion tasks and the dictogloss tasks.
### Table 35: Global Patterns of Resolution

<table>
<thead>
<tr>
<th></th>
<th>Correctly Resolved:</th>
<th>Correctly Resolved:</th>
<th>Incorrectly Resolved</th>
<th>Unresolved</th>
</tr>
</thead>
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<td>L – L</td>
<td>T – L</td>
<td>Lexis Form n (%)</td>
<td>Lexis Form n (%)</td>
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<tr>
<td>Deci-task</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>45 (46)</td>
<td>16 (16)</td>
<td>6 (6)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>T2</td>
<td>40 (35)</td>
<td>22 (19)</td>
<td>19 (17)</td>
<td>5 (4)</td>
</tr>
<tr>
<td>T11</td>
<td>85 (40)</td>
<td>38 (18)</td>
<td>25 (12)</td>
<td>6 (3)</td>
</tr>
<tr>
<td>Story task</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>54 (40)</td>
<td>14 (10)</td>
<td>21 (16)</td>
<td>7 (5)</td>
</tr>
<tr>
<td>T2</td>
<td>60 (28)</td>
<td>57 (27)</td>
<td>37 (17)</td>
<td>17 (8)</td>
</tr>
<tr>
<td>T</td>
<td>114 (33)</td>
<td>71 (20)</td>
<td>58 (17)</td>
<td>24 (7)</td>
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<tr>
<td>Text-task</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>16 (10)</td>
<td>84 (54)</td>
<td>4 (3)</td>
<td>11 (7)</td>
</tr>
<tr>
<td>T2</td>
<td>11 (6)</td>
<td>100 (56)</td>
<td>4 (2)</td>
<td>15 (8)</td>
</tr>
<tr>
<td>T</td>
<td>27 (8)</td>
<td>184 (55)</td>
<td>8 (2)</td>
<td>26 (8)</td>
</tr>
<tr>
<td>Diet-task</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>44 (44)</td>
<td>32 (32)</td>
<td>3 (3)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>T2</td>
<td>40 (25)</td>
<td>68 (42)</td>
<td>7 (4)</td>
<td>6 (4)</td>
</tr>
<tr>
<td>T</td>
<td>84 (32)</td>
<td>100 (38)</td>
<td>9 (3)</td>
<td>9 (3)</td>
</tr>
<tr>
<td>Total</td>
<td>310 (28)</td>
<td>393 (33)</td>
<td>100 (9)</td>
<td>65 (5)</td>
</tr>
<tr>
<td>Mean</td>
<td>78</td>
<td>98</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>SD</td>
<td>36</td>
<td>63</td>
<td>23</td>
<td>10</td>
</tr>
</tbody>
</table>

11 Totals may not add to 100% due to rounding.
An ancillary question concerned the focal participants’ success in resolving the two types of LREs. To identify the focal participants’ success with each type of LRE, percentages of correct resolutions were calculated: the total number of lexis-based LREs that were correctly resolved by learners was divided by the total number of lexis-based LREs. Table 36 reports the percentages of correct resolution according to the type of LRE for each task. The percentages of correct resolution do not appear to be impacted by the type of LREs. In this context, the participants were as successful in resolving lexical gaps (62%) as they were in resolving form gaps (62%). Furthermore, the highest success rates were observed for the text reconstruction tasks and the dictogloss tasks, the two tasks that included a larger amount of aural and written input.

Table 36: Percentages of correctly resolved lexis-based and form-based LREs

<table>
<thead>
<tr>
<th>Correctly Resolved:</th>
<th>Learner-Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lexis-based</td>
</tr>
<tr>
<td>Deci-task</td>
<td>60%</td>
</tr>
<tr>
<td>Story-task</td>
<td>52%</td>
</tr>
<tr>
<td>Text-task</td>
<td>68%</td>
</tr>
<tr>
<td>Dict-task</td>
<td>69%</td>
</tr>
<tr>
<td>Mean</td>
<td>62</td>
</tr>
</tbody>
</table>

The synopsis illustrated the general trends in the focal participants’ abilities to identify gaps in their language system. This initial discussion provides a global picture but does not highlight individual learner differences. In the present study, the analysis of the occurrences and resolutions of LREs was conducted for each focal participant. The analysis of LREs provides an exciting picture of how learners engage in the co-construction of knowledge process. The brief cross-case analysis focuses on similarities and differences within each task.
During the two decision-making tasks, David, Felip, and Paco each produced approximately the same raw number of LREs, 48 LREs, 47 LREs, and 43 LREs respectively, whereas Marta produced 73 LREs. During the two story completion tasks, the analysis uncovered that David and Felip produced a similar amount of LREs, 92 and 83 respectively. The analysis for Marta and Paco indicates some divergence. Marta participated in 111 LREs and Paco participated in 61 LREs. During the text reconstruction tasks, David and Felip produced a similar number of LREs (99 LREs and 93 LREs respectively) as did Marta and Paco (72 LREs and 69 LREs). Finally, with the dictogloss tasks, the four learners produced a very similar number of LREs ranging from 64 LREs to 67 LREs.

Despite these differences, the general distribution in the types of LREs was similar for the four focal participants. For instance, during the decision-making tasks and the story completion tasks, lexis-based LREs outnumbered form-based LREs. During the text reconstruction tasks, form-based LREs consistently outnumbered lexis-based LREs. And finally, some minor variations were observed during the dictogloss tasks: David and Felip produced a greater percentage of form-based LREs whereas Marta and Paco produced slightly more lexis-based LREs than form-based LREs. The language patterns also led to some interesting differences between David and Felip and their peers Marta and Paco. Specifically, Felip and David relied almost exclusively on L3-bilingual mediation to resolve LREs. Conversely, LREs in the target language were less frequent for Marta and Paco. Paco used L1-bilingual for 46% of the LREs and Marta used it for 44% of the LREs.

The analysis of resolution indicated differences in their ability to resolve LREs. Felip was most successful in resolving LREs (72%), followed by David (67%), by Marta (56%), and lastly, by Paco (52%). The focal participants who resolved the smallest number of LREs with their
peers tended to solicit more help from the teacher. For instance, Marta solicited the most help from the teacher (19%), followed by Paco (17%), by David (12%), and by Felip (7%).

The analysis of LREs shows that learners are active and engaged in the learning process. In line with the goals of this study, the analysis examined each focal participant’s performance to highlight similarities and differences in their interactions; the next section presents the details of their LREs.

4.3.2 Occurrence and resolution of LREs

The second research question sought to uncover the focal participants’ ability to produce and resolve LREs. In the next section, I present the occurrence and resolution of the LREs for each task in detail. For the occurrences of LREs, I present the raw number and percentages of LREs according to type (e.g., lexis-based LREs and form-based LREs) and language pattern (e.g., L3-B and L1-B) at Times 1 and 2. For the resolution, I include the four possible outcomes: correctly resolved (with and without the teacher), incorrectly resolved, and unresolved.

4.3.2.1 Decision-making tasks

Table 37 presents the results of the occurrence of LREs for each focal participant. During the decision-making tasks, the results for David indicate a higher percentage of lexis-based LREs (65%) and that the dominant language was L3-B. A task type effect was also uncovered. During the oral components of the task, David produced 12 LREs, and 11 of these were lexis-based LREs. Unlike the oral component, LREs were similarly distributed across type during the written component: 20 lexis-based LREs and 16 form-based LREs. Finally, despite spending more time on task at Time 2, David was involved in more LREs at Time 1 (29 LREs) than at Time 2 (19 LREs).
### Table 37: Occurrences of LREs during decision-making task

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th></th>
<th>Time 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
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<td></td>
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<td>Form</td>
<td>Lexis</td>
<td>Form</td>
<td>Lexis</td>
<td>Form</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
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<td>21 (44)</td>
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</tr>
<tr>
<td>L1-B</td>
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<td>5 (26)</td>
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<td>4 (8)</td>
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<td>Total</td>
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<td>17 (35)</td>
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</tr>
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<td>L3-B</td>
<td>7 (32)</td>
<td>4 (18)</td>
<td>15 (60)</td>
<td>10 (40)</td>
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<td>14 (30)</td>
</tr>
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<td>0 (0)</td>
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<td>4 (9)</td>
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<td>10 (40)</td>
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<tr>
<td>L3-B</td>
<td>5 (17)</td>
<td>8 (27)</td>
<td>9 (21)</td>
<td>6 (14)</td>
<td>14 (19)</td>
<td>14 (19)</td>
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<tr>
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<td>21 (49)</td>
<td>7 (16)</td>
<td>35 (48)</td>
<td>10 (14)</td>
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<tr>
<td>Total</td>
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<td>11 (37)</td>
<td>30 (70)</td>
<td>13 (30)</td>
<td>49 (67)</td>
<td>24 (33)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>5 (31)</td>
<td>5 (31)</td>
<td>5 (19)</td>
<td>1 (4)</td>
<td>10 (23)</td>
<td>6 (14)</td>
</tr>
<tr>
<td>L1-B</td>
<td>4 (25)</td>
<td>2 (13)</td>
<td>19 (70)</td>
<td>2 (7)</td>
<td>23 (54)</td>
<td>4 (9)</td>
</tr>
<tr>
<td>Total</td>
<td>9 (56)</td>
<td>7 (44)</td>
<td>24 (89)</td>
<td>3 (11)</td>
<td>33 (77)</td>
<td>10 (23)</td>
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<td>Global</td>
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<tr>
<td>Mean</td>
<td>15</td>
<td>9</td>
<td>20</td>
<td>8</td>
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<tr>
<td>SD</td>
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</table>

As illustrated in the synopsis, Felip’s patterns were similar to David’s. First, nearly two-thirds of his LREs were lexis-based. Moreover, three quarters of his discussion of LREs used the L3 (77%). A task modality effect was also uncovered such that during the oral components, two thirds of the LREs addressed lexical gaps. During the written components, lexis-based LREs were only slightly more frequent than form-based LREs, specifically 21 of the 35 LREs focused on lexis. Overall, Felip showed minor differences in the frequency in types of LREs at Times 1 and 2; however, the analysis of language patterns shows that at Time 2, LREs were all mediated via L3-bilingual.

Marta produced a higher raw number of LREs during the decision-making tasks than her peers. However, similar to her classmates, lexis-based LREs were more frequent than form-based LREs, 67% and 33%. The analysis also uncovered a similar task modality effect. The results show that 25 of the 30 LREs produced during the oral component of the task were lexis-
based. During the written component, 24 of the 43 LREs were lexis-based LREs. Unlike David and Felip, a higher percentage of L1-bilingual mediation was identified: 62% of the LREs. Also, there was a 7% difference in L1-bilingual mediation at Time 2.

Paco produced the smallest number of LRE; yet, similar to his peers, lexis-based LREs (77%) were more frequent than form-based LREs (23%). Similar to his peers, a task component effect was identified. During the oral component, every LRE was focused on lexical gaps. Like his peers, LREs identified during the written components of the task were also predominantly focused on lexical gaps. Finally, similar to Marta, L1-bilingual LREs were relatively frequent (63%). Although changes over time were limited, in the case of Paco, there was a 33% difference in lexis-based LREs at Time 2.

The patterns of resolution were also closely examined. Table 38 presents the raw number and percentages of the resolution for the four learners during the decision-making tasks. The least successful in resolving LREs was Marta. Of the 73 LREs produced during the decision-making tasks, only 46% of the LREs were correctly resolved. The other focal participants were more successful. Felip correctly resolved 70% of the LREs, Paco correctly resolved 63% of the LREs, and David correctly resolved 61% of the LREs. The analysis also uncovered some differences in the amount of scaffolding provided by the teacher. For instance, Marta, who had the smallest percentage of correct resolution with her peers, engaged the teacher in 23% of the resolutions. The other learners were less dependent on the teacher. For instance, in the case of David, 13% of the LREs were correctly resolved as a result of teacher-learner collaborations, followed by Paco (9%), and finally by Felip (8%).
Table 38: Patterns of resolution of LREs during the decision-making task

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<td>Unresolved</td>
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</table>
To examine the focal participants’ success in resolving lexis-based and form-based LREs, I conducted one last type of analysis: for each type of LRE, the number of correctly resolved LREs was divided by the total number of LREs. The analysis did not uncover a clear pattern of success for one type of LRE over the other. The results for the decision-making task show that David successfully resolved a higher percentage of lexis-based LREs (65%) than form-based LREs (53%). Similar to David, Marta had more success with lexis-based LREs (51%) than form-based LREs (38%). Conversely, Felip resolved a higher percentage of form-based LREs (78%) than lexis-based LREs (66%). Paco had a similar distribution of successful resolution for lexis-based and form-based items and was only marginally more successful in resolving lexis-based LREs (64%) compared to form-based LREs (60%).

4.3.2.2 Story completion tasks

Table 39 presents the findings for the story completion tasks. During the story completion task, the results for David indicate more lexis-based LREs (67%) than form-based LREs (33%). Similar to the previous task, L3-bilingual continued to be more frequently used, accounting for 79% of his LREs. Of interest, the analysis indicated that the L1-bilingual LREs were primarily lexis-based. As in the decision-making task, a task modality effect was uncovered. During the oral component, David participated in 33 LREs, of which 31 addressed lexical gaps. The total number of LREs was greater during the written components, but unlike the first component, LREs were similarly distributed across type. Finally, the analysis uncovered some changes over time. For instance, lexis-based LREs decreased from 78% to 61% at Time 2 and L1 mediation increased from 14% to 25%.
Table 39: Occurrences of LREs: Story completion

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<td>23 (41)</td>
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<td>34 (61)</td>
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</table>

Similar to David, Felip relied extensively on the target language (90%), and in his case all L1-bilingual LREs concerned lexis. Unlike David, lexis-based LREs (59%) were only slightly more frequent than form-based LREs (41%). A task modality impact was also uncovered such that during the oral components of the task, 81% (13 of the 16) of LREs were lexis-based, while during the written components, lexis-based LREs accounted for only 54% (of 67). Similar to David, the frequency of Felip’s lexis-based LREs decreased at Time 2 from 75% to 53%. However, changes in the language patterns were not observed over time; Felip continued to rely on the target language.

The analysis of Marta’s performance provides a distinct picture. Marta produced the highest number of LREs. Compared to David and Felip, for Marta, the percentages between lexis-based LREs and form-based LREs were more equally distributed, at 58% and 42%. Furthermore, L3-bilingual LREs were less frequent in Marta’s data, namely, 64%. Despite these
differences, both components led to the production of lexis-based LREs: specifically, during the oral components, 30 of the 34 LREs addressed lexical gaps. During the written components, similar to Felip, lexis-based LREs were also more frequent than form-based LREs for Marta. The comparison of LREs at times 1 and 2 yielded some interesting results. Consistent with Marta’s peers’ patterns, lexis-based LREs were less frequent at Time 2. Specifically, a 30% difference was identified. Unlike her peers, a large increase in L1-bilingual mediation was identified.

Finally, Paco produced 61 LREs, the smallest number of LREs. Similar to his peers, he used more lexis-based LREs (74%) than form-based LREs (26%). Like Marta, Paco’s L1-bilingual LREs were frequent, accounting for 54% of the LREs. Also, Paco produced a majority of lexis-based LREs during the oral components. Of the 19 instances, only 1 LRE was form-based. During the written components, lexis based outnumbered form-based: 27 of the 42 LREs focused on lexis. However, unlike his peers, Paco was less involved in LREs. At Time 1, he produced 39 LREs and at Time 2, only 22 LREs. Also, the L1 was more dominant at Time 2: 69% of the LREs were discussed in L1-bilingual compared to 46% at Time 1.

Table 40 presents the raw number and percentages of the resolution for the four learners. During the story completion task, learner-learner correct resolutions were slightly less frequent than in the other tasks. For instance, Felip correctly resolved 69% of the LREs; David correctly resolved 55% of the LREs; Marta correctly resolved 48% of the LREs; Paco correctly resolved 41%. In turn, teacher-learner resolutions were more frequent. Marta solicited help for 34% of the LREs; David solicited help for 26% of the LREs; Paco for 22%; and Felip, only 9%.

Their success in resolving the two types of LREs was also measured. During the story completion task, David resolved a higher percentage of form-based LREs (60%) and was slightly less successful with lexis-based LREs (52%). Similarly, Marta resolved a higher percentage of
form-based LREs (53%) than lexis-based LREs (44%). In the case of Felip, similar distributions were observed: 68% for form-based LREs and 69% for lexis-based LREs. Finally, Paco was more successful with lexis-based LREs (44%) than form-based LREs (31%).

In review, the findings suggest that the story completion tasks impacted the production of LREs. Due to the lack of written input, learners discussed a greater number of lexis-based LREs.
Table 40: *Patterns of resolution during story completion task*

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<tr>
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<th>Correctly Resolved:</th>
<th>Incorrectly Resolved</th>
<th>Unresolved</th>
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<td>Form</td>
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<td></td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td>6 (9)</td>
<td>10 (4)</td>
<td>1 (2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 (4)</td>
<td>8 (3)</td>
<td></td>
</tr>
</tbody>
</table>
4.3.2.3 Text reconstruction tasks

The text reconstruction tasks yielded very similar ratios of form-based and lexis-based LREs across the four participants, as illustrated in Table 41. In a first instance, David participated in 99 LREs, of which 85 were form-based. Only one LRE was L1-bilingual. Although two components were integrated into the task, the nature of the second component led to the production of fewer LREs because learners worked with a corrected version of the task. As such, LREs were identified primarily during the reconstruction component (n=76).

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th></th>
<th>Time 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lexis</td>
<td>Form</td>
<td>Lexis</td>
<td>Form</td>
<td>Lexis</td>
<td>Form</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>David</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>8 (18)</td>
<td>35 (80)</td>
<td>5 (9)</td>
<td>50 (91)</td>
<td>13 (13)</td>
<td>85 (86)</td>
</tr>
<tr>
<td>L1-B</td>
<td>1 (2)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>1 (1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Total</td>
<td>9 (20)</td>
<td>35 (80)</td>
<td>5 (9)</td>
<td>50 (91)</td>
<td>14 (14)</td>
<td>85 (86)</td>
</tr>
<tr>
<td>Felip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>3 (6)</td>
<td>41 (87)</td>
<td>2 (4)</td>
<td>34 (74)</td>
<td>5 (5)</td>
<td>75 (81)</td>
</tr>
<tr>
<td>L1-B</td>
<td>1 (2)</td>
<td>2 (4)</td>
<td>3 (7)</td>
<td>7 (15)</td>
<td>4 (4)</td>
<td>9 (10)</td>
</tr>
<tr>
<td>Total</td>
<td>4 (9)</td>
<td>43 (92)</td>
<td>5 (11)</td>
<td>41 (89)</td>
<td>9 (10)</td>
<td>84 (90)</td>
</tr>
<tr>
<td>Marta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>0 (0)</td>
<td>12 (35)</td>
<td>1 (3)</td>
<td>19 (50)</td>
<td>1 (1)</td>
<td>31 (43)</td>
</tr>
<tr>
<td>L1-B</td>
<td>3 (9)</td>
<td>19 (56)</td>
<td>2 (5)</td>
<td>16 (42)</td>
<td>5 (7)</td>
<td>35 (49)</td>
</tr>
<tr>
<td>Total</td>
<td>3 (9)</td>
<td>31 (91)</td>
<td>3 (8)</td>
<td>35 (92)</td>
<td>6 (8)</td>
<td>66 (92)</td>
</tr>
<tr>
<td>Paco</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3-B</td>
<td>4 (13)</td>
<td>21 (70)</td>
<td>0 (0)</td>
<td>18 (46)</td>
<td>4 (6)</td>
<td>39 (57)</td>
</tr>
<tr>
<td>L1-B</td>
<td>3 (10)</td>
<td>2 (7)</td>
<td>4 (10)</td>
<td>17 (44)</td>
<td>7 (10)</td>
<td>19 (28)</td>
</tr>
<tr>
<td>Total</td>
<td>7 (23)</td>
<td>23 (77)</td>
<td>4 (10)</td>
<td>35 (90)</td>
<td>11 (16)</td>
<td>58 (84)</td>
</tr>
<tr>
<td>Total</td>
<td>23 (15)</td>
<td>132 (85)</td>
<td>17 (10)</td>
<td>161 (91)</td>
<td>40 (12)</td>
<td>293 (88)</td>
</tr>
<tr>
<td>Mean</td>
<td>6</td>
<td>33</td>
<td>4</td>
<td>40</td>
<td>10</td>
<td>73</td>
</tr>
<tr>
<td>SD</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>13</td>
</tr>
</tbody>
</table>

During Felip’s interactions, only 10% of the instances were lexis-based LREs and similar to David, the L1 was used marginally (14%). Felip also produced the majority of the LREs during the first component; only 14 LREs were identified during the comparing component and were predominantly form-based LREs. Differences were not identified between Times 1 and 2.
Like her peers, Marta produced primarily form-based LREs (92%) and only 10 LREs were produced during the second component. Unlike David and Felip, results indicate that her LREs were more often mediated using the L1 (56% were L1-bilingual). Despite the overall higher reliance on the L1, the findings indicate an 18% difference in LREs produced via L1-bilingual at Time 2 (i.e., L3-bilingual were more numerous).

Finally, Paco once again produced a smaller amount of LREs compared to his peers; however, similar to his peers, he produced a higher percentage of form-based LREs (84%), the majority of which were produced during the first component. Like Marta, the L1 played a more central role: 38% of the LREs were mediated via the L1. Also, there was a 37% difference between Times 1 and 2 in terms of L1 mediation: Paco tended to use more L1-mediation at Time 2.

Overall, unlike the other tasks, the focal participants seldom relied on teacher mediation, as illustrated in Table 42. For example, David and his peer correctly resolved 74% of the LREs and there was no evidence of teacher-mediated resolutions. Felip correctly resolved 64% of the LREs and solicited help for 10% of the LREs. With Marta, unlike her previous performance, a higher accuracy rate of 65% was identified and like Felip, she requested help for 10% of the LREs. Finally, Paco only correctly resolved 46%, but requested help for 20% of the LREs.

During the text reconstruction task, David, Felip, and Marta successfully resolved a higher percentage of form-based LREs than lexis-based LREs: David resolved 79% of the form-based LREs and 73% of the lexis-based LREs; Felip resolved 65% of form-based LREs and 44% of lexis-based LREs; and Marta resolved 67% and 50%, respectively. Unlike his peers, Paco was most successful resolving lexis-based LREs (82%) compared to form-based LREs (40%).
Table 42: Resolution during text reconstruction task

<table>
<thead>
<tr>
<th></th>
<th>Correctly Resolved:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L – L</td>
<td>T – L</td>
<td>Incorrectly Resolved</td>
<td>Unresolved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lexis Form</td>
<td>Lexis Form</td>
<td>Lexis Form</td>
<td>Lexis Form</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td>David</td>
<td>T1</td>
<td>7 (16)</td>
<td>0 (0)</td>
<td>2 (5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>4 (7)</td>
<td>0 (0)</td>
<td>2 (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>11 (11)</td>
<td>0 (0)</td>
<td>3 (3)</td>
<td></td>
</tr>
<tr>
<td>Felip</td>
<td>T1</td>
<td>3 (6)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>1 (2)</td>
<td>3 (7)</td>
<td>1 (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>4 (4)</td>
<td>3 (3)</td>
<td>1 (1)</td>
<td></td>
</tr>
<tr>
<td>Marta</td>
<td>T1</td>
<td>1 (3)</td>
<td>2 (6)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>2 (5)</td>
<td>1 (3)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>3 (4)</td>
<td>3 (4)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Paco</td>
<td>T1</td>
<td>5 (17)</td>
<td>2 (7)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T2</td>
<td>4 (10)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>9 (13)</td>
<td>2 (3)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>27 (8)</td>
<td>8 (3)</td>
<td>4 (1)</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>7</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
4.3.2.4 Dictogloss tasks

The production of LREs during the dictogloss is similar for each participant as exemplified in Table 43. During the dictogloss tasks, a total of 67 LREs were identified in David’s data and were balanced across types of LREs: 40% lexis-based and 60% form-based, and were predominately mediated via L3-bilingual turns. Similar to the text reconstruction task, LREs were not frequent during the comparing component. Finally, changes over time were identified: the percentage of form-based LREs was higher at Time 2.

<table>
<thead>
<tr>
<th>Table 43: Occurrences of LREs: Dictogloss task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>David</td>
</tr>
<tr>
<td>L3-B</td>
</tr>
<tr>
<td>L1-B</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Felip</td>
</tr>
<tr>
<td>L3-B</td>
</tr>
<tr>
<td>L1-B</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Marta</td>
</tr>
<tr>
<td>L3-B</td>
</tr>
<tr>
<td>L1-B</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Paco</td>
</tr>
<tr>
<td>L3-B</td>
</tr>
<tr>
<td>L1-B</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

Similar to David, Felip produced fewer lexis-based LREs (39%) than form-based (61%) and relied almost exclusively on L3-bilingual turns (98%). During the dictogloss task, only 13 of the LREs were identified during the comparing component. The results indicate that form-based LREs were greater at Time 2: a 21% difference was identified.
The results of Marta’s performance were in line with Paco such that lexis-based LREs (53%) and form-based LREs (47%) were similarly distributed. An interesting finding was that during this task, LREs were mediated primarily via L3-bilingual turns (77%). Unlike David and Felip, a slightly higher percentage of LREs were identified during the second component. In comparing the two texts, 19 LREs were identified, which were similarly distributed across types of LREs. The quantity and distribution of LREs did not change. However, L1-mediation increased at Time 2. Specifically, at Time 1, all the LREs were coded as L3-bilingual and at Time 2, only 64% of the LREs were coded as L3-bilingual.

For Paco, 64 LREs were identified, of which 55% were lexis-based. Similar to Marta, L3-bilingual LREs were more frequent than in other tasks, 72%. Unlike his peers, Paco produced a smaller number of LREs at Time 1; however, a higher percentage of them were L1-bilingual: at Time 1, 13% of the LREs were L3-bilingual and increased to 37% at Time 2.

Table 44 shows a complex pattern of resolution. During the dictogloss task, Felip had the highest percentage of learner-learner correct resolution (83%) and there was limited evidence of teacher-learner resolutions (2%). David correctly resolved 76% of the LREs and an additional 5% with the help from the teacher. Marta correctly resolved 65% of the LREs and 8% of the LREs were resolved with the help of the teacher. Finally, Paco correctly resolved 58% of the LREs with his peers and 14% with the help of the teacher.

The final consideration was the participants’ relative success with lexis-based and form-based LREs. The findings are less clear than with the previous task. David and Felip had more success with form-based LREs. Specifically, David correctly resolved 93% of the form-based LREs compared to 52% of the lexis-based LREs. Similarly, Felip resolved 87% of form-based
LREs and 76% of lexis-based LREs. Conversely, Marta resolved a higher percentage of lexis-based LREs (77%) than form-based LREs (52%) as did Paco: 69% and 45%, respectively.
Table 44: Patterns of resolution during dictogloss task

<table>
<thead>
<tr>
<th></th>
<th>Correctly Resolved:</th>
<th>Correctly Resolved:</th>
<th>Incorrectly Resolved</th>
<th>Unresolved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L – L</td>
<td>T – L</td>
<td>Lexis</td>
<td>Form</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>David</td>
<td>T1 8 (29) 11 (39)</td>
<td>2 (7) 0 (0)</td>
<td>4 (14) 1 (4)</td>
<td>1 (4) 1 (4)</td>
</tr>
<tr>
<td>Felip</td>
<td>T1 13 (52) 8 (32)</td>
<td>0 (0) 0 (0)</td>
<td>0 (0) 4 (16)</td>
<td>0 (0) 0 (0)</td>
</tr>
<tr>
<td>Marta</td>
<td>T1 1 (3) 24 (71)</td>
<td>2 (6) 1 (3)</td>
<td>0 (0) 6 (18)</td>
<td>0 (0) 0 (0)</td>
</tr>
<tr>
<td>Paco</td>
<td>T1 10 (43) 5 (22)</td>
<td>1 (4) 3 (13)</td>
<td>2 (9) 2 (9)</td>
<td>0 (0) 0 (0)</td>
</tr>
<tr>
<td>Total</td>
<td>60 (23) 128 (47)</td>
<td>10 (4) 10 (4)</td>
<td>16 (6) 31 (12)</td>
<td>7 (3) 5 (2)</td>
</tr>
<tr>
<td>SD</td>
<td>9 13</td>
<td>1 3</td>
<td>3 7</td>
<td>1 1 2</td>
</tr>
</tbody>
</table>
4.3.2.5 Summary

The analysis of the occurrences of LREs has led to important findings: (1) task type effects on the types of LREs, (2) language modality effects on the types of LREs, and (3) task type effects on the language patterns of LREs. Also, the analysis of the resolution patterns shows the following: (1) learners differ in their ability to correctly resolve LREs and (2) task type effect on resolution patterns.

The first finding, task type effects, suggests that certain types of tasks are more conductive to either lexis-based or form-based LREs. For instance, the decision-making task and the story completion tasks led to an overall higher percentage of lexis-based LREs; the text reconstruction led to production of form-based LREs; and, during the dictogloss tasks, the focus was on both form and lexis. The second finding is that task modality impacts the production of LREs. For example, during the written components of the decision-making tasks and the story completion tasks, there were more LREs than during the oral components; however, lexis-based LREs were more frequent during the oral components. Finally, different language patterns were identified. David and Felip relied almost exclusively on the target language, while Marta and Paco tended to rely more frequently on both languages during three of the four tasks: only during the dictogloss task was L3-mediation more frequent.

The analysis of the individual learner’s resolution of LREs provides evidence that individual learners perform differently during learner-learner interaction. First, David and Felip were more successful in resolving LREs and evidence of incorrect resolution was more limited; Marta produced a lower percentage of correctly resolved LREs with her peers and relied more extensively on help provided by the teacher; Paco was the least successful in resolving LREs. Finally, David, Felip, and Marta were able to identify both lexical and grammatical gaps;
however, Paco was mostly involved in lexis-based LREs. The second finding is the impact of the
task on resolution. In the case of David, the tasks with the highest percentage of incorrect
resolution were the decision-making tasks (26%) and the text reconstruction tasks (22%); Felipe
had a higher percentage of incorrect resolutions/unresolved LREs during the text reconstruction
tasks (27%) and the story completion tasks (22%); Marta had a higher percentages of incorrect
resolutions during the decision-making task (30%) and text reconstruction tasks (25%) and the
dictogloss tasks (25%); Paco was less successful during the story completion tasks (38%) and the
text reconstruction tasks (33%). In sum, the findings suggest that benefits of languaging may not
be uniform or universal.

4.4 L3 development

Another aim of the present study was to investigate whether producing and resolving
LREs was conducive to L3 development. As described in the methods section, the learners
participated in a series of posttests. The participants completed a paper-based posttest that
included items that originated in their LREs and an individual recording based on written
prompts. Scores on the posttests and the integration of lexis and syntactic structures discussed in
the LREs into their individual oral recordings are suggestive of L3 development. The results for
each focal participant are the focus of the subsequent section.

4.4.1 David: L3 development

In determining language development, it was critical that spontaneous data be elicited
from the learners. However, due to the risk attributed with spontaneous data production, it was
critical that posttests include targeted structures. Table 45 presents the global results (bottom
row) and also presents the results for each task at Times 1 and 2 and their combined totals in the
last column. The first column for Time presents the total number of correct responses out of the
total number of LREs and the second column presents the corresponding percentage.

Furthermore, the table presents the global results (shown in the final row) for the four tasks. There are several interesting findings. First, the global results show that David responded to 25/34 items from lexis-based LREs correctly (74%) and responded to 80/84 items from form-based items correctly (95%) on the posttests. The global results suggest that David performed equally well over time. At Time 1, David recalled 42/46 questions on the posttest correctly (91%) and at Time 2, he correctly answered to 63/72 questions (88%). However, David was more consistent for items that originated in form-based LREs, namely, 98% and 94% at Times 1 and 2. The accuracy of items derived from lexis-based LREs was higher at Time 1 (81%) than at Time 2 (67%).

<table>
<thead>
<tr>
<th>Table 45: David and L3 development</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td><strong>Deci-task</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>2/4 (50.0)</td>
<td>¾ (75.0)</td>
<td>5/8 (62.5)</td>
</tr>
<tr>
<td>Form</td>
<td>5/5 (100)</td>
<td>½ (50.0)</td>
<td>6/7 (85.7)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7/9 (77.8)</td>
<td>4/6 (66.7)</td>
<td>11/15 (73.3)</td>
</tr>
<tr>
<td><strong>Story-task</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>11/11 (100)</td>
<td>6/8 (75.0)</td>
<td>17/19 (89.5)</td>
</tr>
<tr>
<td>Form</td>
<td>2/3 (66.7)</td>
<td>8/9 (88.9)</td>
<td>10/12 (83.3)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13/14 (92.9)</td>
<td>14/17 (82.4)</td>
<td>27/31 (87.1)</td>
</tr>
<tr>
<td><strong>Text-task</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>0/0 (0.0)</td>
<td>0/1 (0.0)</td>
<td>0/1 (0.0)</td>
</tr>
<tr>
<td>Form</td>
<td>15/15 (100)</td>
<td>33/33 (100.0)</td>
<td>48/48 (100.0)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15/15 (100)</td>
<td>33/34 (97.1)</td>
<td>48/48 (98.0)</td>
</tr>
<tr>
<td><strong>Dict-task</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
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<td>3/5 (60.0)</td>
<td>3/6 (50.0)</td>
</tr>
<tr>
<td>Form</td>
<td>7/7 (100)</td>
<td>9/10 (90.0)</td>
<td>16/17 (94.1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7/8 (87.5)</td>
<td>12/15 (80.0)</td>
<td>19/23 (82.6)</td>
</tr>
<tr>
<td><strong>Global</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>13/16 (81.3)</td>
<td>12/18 (66.7)</td>
<td>25/34 (73.5)</td>
</tr>
<tr>
<td>Form</td>
<td>29/30 (96.7)</td>
<td>51/54 (94.4)</td>
<td>80/84 (95.2)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>42/46 (91.3)</td>
<td>63/72 (87.5)</td>
<td>105/117 (89.7)</td>
</tr>
</tbody>
</table>

Some differences across the tasks were also observed. The task with the highest percentage of correct responses was the text reconstruction task (98%), followed by the story completion tasks (87%), by the dictogloss task (83%) and, lastly, the decision-making task.
(73%). Given the small number of items, differences across times 1 and 2 were not taken into account.

The first analysis combined the posttest results for correctly and incorrectly resolved LREs thereby masking the relationship between patterns of resolution and posttest scores. The subsequent analysis discriminated between items that were created based on correctly resolved LREs and items that were based on incorrectly resolved or unresolved LREs. Table 46 first presents the results for the number of correct answers on the posttest (PT) and the total number of LREs that had been correctly resolved during the task (LREs), (i.e., PT/LREs). Below, the total number of correct answers on the posttest and the total number of incorrectly resolved LREs during the task are also presented.

Table 46: Posttest scores: Correct responses

<table>
<thead>
<tr>
<th>Decision-making</th>
<th>Story</th>
<th>Reconstruct</th>
<th>Dictogloss</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Correct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>4/4</td>
<td>(100)</td>
<td>13/14</td>
<td>(92.9)</td>
</tr>
<tr>
<td>Form</td>
<td>¾</td>
<td>(75)</td>
<td>7/8</td>
<td>(87.5)</td>
</tr>
<tr>
<td>Total</td>
<td>7/8</td>
<td>(87.5)</td>
<td>20/22</td>
<td>(90.9)</td>
</tr>
<tr>
<td>Incorrect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>¼</td>
<td>(25)</td>
<td>4/5</td>
<td>(80)</td>
</tr>
<tr>
<td>Form</td>
<td>3/3</td>
<td>(100)</td>
<td>¾</td>
<td>(75)</td>
</tr>
<tr>
<td>Total</td>
<td>4/7</td>
<td>(57.1)</td>
<td>7/9</td>
<td>(77.8)</td>
</tr>
</tbody>
</table>

The findings in Table 46 indicate that David performed better on items that were created from correctly resolved LREs. The last column shows the total for the four tasks and indicates a high accuracy: 22/24 of lexis-based LREs (92%) and 57/60 of form-based LREs (95%) were correctly recalled. The analysis also considered items that were either incorrectly resolved or abandoned during the interaction. A surprisingly high accuracy rate on the posttest was uncovered, namely, 25/34 items were accurately recalled despite being incorrectly resolved.
during task performance and the accuracy rates were highest for items based on form-based LREs. Overall, there was a greater percentage of correctly recalled items that originated in the text reconstruction tasks.

In introducing language development, the importance of eliciting spontaneous data was discussed. Therefore, a second measure of L3 development was employed in the study: spontaneous use of language during individual recordings. L3 gains during the oral component of the individual posttest were operationalized as: LREs initiated by the focal participants during task performance and incorporated into spontaneous data production. The results show that David’s spontaneous use of lexis and form that was the subject of an LRE during the pedagogical tasks was quite low. A total of six items originating in lexis-based LREs and two items from form-based LREs were incorporated by David into his answers during the individual recordings. Example 24 shows a lexis-based LRE for the word ‘to surf’.

Example 24: Task performance lexis-based LRE

70 Felip: Ce matin en navegando en
[This morning while surfing on]
71 David: Surfer
[Surfing]
72 Felip: Non
[No]
73 David: Nager, non
[Swimming, no]
74 Felip: E… argh
[E… argh]
75 David: Je ne me souviens pas
[I don’t remember]

Although they were not quite able to find resolution at this moment, they identified the gap during the second component of the task which consisted of comparing the two versions of the text. This is illustrated in Example 25:
Example 25: Identification of the gap

76  David: Ce matin je naviguais
       [This morning I was surfing]
77  Felip: Ah
68  [Ah]
78  David: Ça c’est la réponse de le mot que nous allons
       [That is the answer for the word that we will need]

During his fourth posttest, David spontaneously produced the following sentence which included the target item ‘to surf’ which had been produced during the dictogloss task, as illustrated in Example 26:

Example 26: Integration of a lexical item

Et pour ça, et ça c’est la que… um… ça c’est la que je j’essayer de de naviguer a l’internet et il ya beaucoup de situation que je ne peux pas entrer et c’est très fâché, je me fâche.
[And for this reason, and it’s the…e….I try to surf on the internet and there are many sites that I am not able to access and that is very upsetting, I get upset.]

This example illustrates that although David was unable to produce the item during the task – the LRE is evidence of this – which began in the first component of the task and was resolved in the second component of the task. This item was later incorporated into his answer during his individual posttest, a sign of internalization. The incorporation of the French equivalent of the word ‘to surf’ provides further evidence of L3 development in the microgenetic domain.

4.4.2 Felip: L3 development

Table 47 presents the overall results for each task separately at Time 1, Time 2, and at Times 1 and 2 combined for Felip. Felip correctly responded to 22/30 items created from lexis-based LREs correctly (73%) and responded to 62/86 items from form-based items correctly (72%) on the posttest. Thus, out of 116 items, he correctly responded to 84 items (72%). Similar
to David, Felip was as successful in recalling items that had originated in lexis and form-based LREs. Furthermore, differences across task type were not identified. Felip recalled between 67% and 77% of the items and his patterns were consistent over time. In sum, Felip was successful on the posttests, albeit less so than his peer David.

<table>
<thead>
<tr>
<th>Task</th>
<th>Time 1</th>
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<th>Time 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Decision</td>
<td>LEXIS</td>
<td>3</td>
<td>75.0</td>
<td>4</td>
<td>66.7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>FORM</td>
<td>3</td>
<td>75.0</td>
<td>4</td>
<td>57.1</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>10</td>
<td>75.0</td>
<td>10</td>
<td>61.5</td>
<td>17</td>
</tr>
<tr>
<td>Story</td>
<td>LEXIS</td>
<td>2</td>
<td>66.7</td>
<td>9</td>
<td>75.0</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>FORM</td>
<td>3</td>
<td>100.0</td>
<td>8</td>
<td>66.7</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5</td>
<td>80.0</td>
<td>17</td>
<td>70.8</td>
<td>22</td>
</tr>
<tr>
<td>Text</td>
<td>LEXIS</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>100.0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>FORM</td>
<td>4</td>
<td>66.7</td>
<td>17</td>
<td>77.3</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14</td>
<td>66.7</td>
<td>18</td>
<td>77.3</td>
<td>32</td>
</tr>
<tr>
<td>Dict</td>
<td>LEXIS</td>
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<td>0.0</td>
<td>4</td>
<td>75.0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>FORM</td>
<td>6</td>
<td>83.3</td>
<td>9</td>
<td>75.0</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6</td>
<td>83.3</td>
<td>12</td>
<td>75.0</td>
<td>17</td>
</tr>
<tr>
<td>Global</td>
<td>LEXIS</td>
<td>5</td>
<td>71.4</td>
<td>17</td>
<td>73.9</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>FORM</td>
<td>24/33</td>
<td>72.7</td>
<td>38/53</td>
<td>71.7</td>
<td>62/86</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29/40</td>
<td>72.5</td>
<td>55/76</td>
<td>72.4</td>
<td>84/116</td>
</tr>
</tbody>
</table>

In the final stage of the analysis, patterns of correct resolution in relation to L3 development were closely examined. Results in Table 48 suggest that Felip was more successful resolving items that had been correctly resolved (80%) during the interactions than items that were incorrectly resolved (55%). Moreover, Felip was slightly more accurate in the recall of form-based LREs (82%) than lexis-based LREs (71%). Overall, Felip experienced more success with items that were based on interactions that unfolded during the text reconstruction task. Similar to David, Felip also correctly recalled items on the posttest that were not correctly resolved during the interactions; however, unlike David, Felip was more successful for items that originated in lexis-based LREs than form-based LREs.
Table 48: Posttest scores: Correct responses

<table>
<thead>
<tr>
<th></th>
<th>Decision-making</th>
<th>Story</th>
<th>Reconstruct</th>
<th>Dictogloss</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Correct</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>4/7</td>
<td>57.1</td>
<td>10/12</td>
<td>83.3</td>
<td>0/0</td>
</tr>
<tr>
<td>Form</td>
<td>6/9</td>
<td>66.7</td>
<td>8/10</td>
<td>80</td>
<td>25/29</td>
</tr>
<tr>
<td>Total</td>
<td>9/16</td>
<td>56.3</td>
<td>18/22</td>
<td>81.8</td>
<td>25/29</td>
</tr>
<tr>
<td>Incorrect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>3/3</td>
<td>100</td>
<td>1/3</td>
<td>33.3</td>
<td>1/1</td>
</tr>
<tr>
<td>Form</td>
<td>½</td>
<td>50</td>
<td>2/4</td>
<td>50</td>
<td>6/14</td>
</tr>
<tr>
<td>Total</td>
<td>4/5</td>
<td>80</td>
<td>3/7</td>
<td>42.9</td>
<td>7/15</td>
</tr>
</tbody>
</table>

As a second measure of L3 development, the analysis considered the production of spontaneous items that originated during Felip’s task performance. Like David, for Felip, a total of six new lexical items were incorporated into his spontaneous speech production. Furthermore, he incorporated two target structures that had been explicitly discussed during task performance. In Example 27, we see that Felip incorrectly used the French word for a mess and was corrected by his peer in Line 82:

Example 27: Lexis-based LREs produced by Felip

79 Felip: Il faisait... il faisait... il faisait... comment se dire un... [He was doing... he was doing... he was doing how can we say a...]
80 Thomas: Désastre, como [Disaster, like]
81 Felip: E...un catastrophe [E... a mess*]
82 Thomas: Catastrophe [Mess]
83 Felip: Jajaja [Laughter]
84 Thomas: Oui, un catastrophe avec le l’appartement. [Yes, a mess with the apartment]
85 Felip: Très bien. [Very good]
Although Felip did not use it explicitly during task performance, during the individual production task, Felip incorporated the item correctly as shown in Example 28:

**Example 28: Integration of lexis-based LREs**

Dans le weekend… comment se dire… l’appartement toute salé avec ses poubelles et ses… plats et nourriture qu’il ne faisait le ménage. C’était une catastrophe.  
[During the weekend, how can I say, the apartment was all dirty with garbage and the plates and the food. He wasn’t doing the housework. It was a mess.]

In review, in Felip’s spontaneous language production, there is limited evidence of items that had been discussed during his task performance. Given the range of words and structure to use, these examples are, however, suggestive of L3 development.

**4.4.3 Marta: L3 development**

In Table 49, the results for Marta are presented. The findings suggest that Marta was less successful than David in recalling information, but her findings are line with Felip. Differences in her ability to recall lexis-based versus form-based items were identified such that Marta was more successful in resolving items that had originated in form-based LREs (86%) compared to items that had originated in lexis-based LREs (65%): Finally, results suggest that each task provided her with language development opportunities. The task with the highest percentage of correct responses was the text reconstruction (86%) followed by the dictogloss (81%), by the story completion (73%), and lastly, by the decision-making tasks (61%).
Table 49: Marta and L3 development

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th></th>
<th>Time 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n   %</td>
<td></td>
<td>n   %</td>
<td></td>
<td>n   %</td>
<td></td>
</tr>
<tr>
<td>Deci-task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>0/1 (0.0)</td>
<td></td>
<td>3/5 (60.0)</td>
<td></td>
<td>5/10 (50.0)</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>6/8 (75.0)</td>
<td></td>
<td>5/9 (55.6)</td>
<td></td>
<td>9/13 (69.2)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6/9 (66.7)</td>
<td></td>
<td>8/14 (57.1)</td>
<td></td>
<td>14/23 (60.9)</td>
<td></td>
</tr>
<tr>
<td>Story-task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>8/11 (72.7)</td>
<td></td>
<td>4/10 (40.0)</td>
<td></td>
<td>12/21 (57.1)</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>4/4 (100.0)</td>
<td></td>
<td>11/12 (91.7)</td>
<td></td>
<td>15/16 (93.8)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12/15 (80.0)</td>
<td></td>
<td>15/22 (68.2)</td>
<td></td>
<td>27/37 (73.0)</td>
<td></td>
</tr>
<tr>
<td>Text-task</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>0/1 (0.0)</td>
<td></td>
<td>3/3 (100.0)</td>
<td></td>
<td>¾ (75.0)</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>17/20 (85.0)</td>
<td></td>
<td>16/18 (88.9)</td>
<td></td>
<td>33/38 (86.8)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17/21 (81.0)</td>
<td></td>
<td>19/21 (90.5)</td>
<td></td>
<td>36/42 (85.7)</td>
<td></td>
</tr>
<tr>
<td>Dict-Task</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>3/4 (75.0)</td>
<td></td>
<td>5/5 (100.0)</td>
<td></td>
<td>11/12 (91.7)</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>7/7 (100.0)</td>
<td></td>
<td>6/6 (100.0)</td>
<td></td>
<td>14/14 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10/11 (90.9)</td>
<td></td>
<td>11/11 (100.0)</td>
<td></td>
<td>25/26 (96.2)</td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>45/56 (80.4)</td>
<td></td>
<td>53/68 (77.9)</td>
<td></td>
<td>98/124 (79.0)</td>
<td></td>
</tr>
</tbody>
</table>

To better understand the relationship between resolution of LREs and language development, Table 50 presents the results for items from correctly resolved LREs and items from incorrectly resolved LREs. Overall, Marta experienced gains, although these were more prominent for items based on form-based LREs. She accurately recalled 24/35 lexis-based items (69%) and 44/48 form-based items (92%). Also, she was most successful during the dictogloss tasks. As for the incorrectly resolved LREs, the findings indicate that she was successful for form-based items: 29/41 items (71%). Although the number of items from lexis-based items is small (n=9), the findings suggest that she experienced less success with these: only 3/9 items (33%) were answered correctly.
Table 50: Posttest scores: Correct responses

<table>
<thead>
<tr>
<th></th>
<th>Decision-making</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Correct</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>5/8</td>
<td>62.5</td>
<td>10/16</td>
<td>62.5</td>
<td>¾</td>
<td>75</td>
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<tr>
<td>Form</td>
<td>5/6</td>
<td>83.3</td>
<td>12/12</td>
<td>100</td>
<td>20/23</td>
<td>86.9</td>
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<td>85.2</td>
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</tr>
<tr>
<td>Lexis</td>
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<td>1/5</td>
<td>20</td>
<td>0/0</td>
<td>0</td>
</tr>
<tr>
<td>Form</td>
<td>4/7</td>
<td>57.1</td>
<td>¾</td>
<td>75</td>
<td>13/15</td>
<td>86.6</td>
</tr>
<tr>
<td>Total</td>
<td>4/9</td>
<td>44.4</td>
<td>4/9</td>
<td>44.4</td>
<td>13/15</td>
<td>86.6</td>
</tr>
</tbody>
</table>

The analysis considered the incorporation of spontaneous items that were originally identified as LREs during task performance. Unlike her peers David and Felip, there was limited evidence of her incorporating items and structures that originated in LREs. Only three lexical items were incorporated during the individual recording as well as one syntactic structure. In addition to lexical items, there was one example that shows how Marta was able to incorporate the correct pronunciation for a lexical item as a result of LREs. While working with Alejandra, she discussed the pronunciation of the word for fish, e.g., instead of producing the voiceless alveolar fricative [s], she was producing the voiced phoneme [z]; however, during the individual recording, she successfully produced the voiceless phoneme. This example is interesting because it shows how interaction can lead to the development of one or multiple aspects of the target language, for example pronunciation, meaning, and spelling.

4.4.4 Paco: L3 development

Table 51 presents Paco’s results from the posttests. Paco was the least successful at recalling items on the posttest. Paco responded to 28/38 items from lexis-based LREs correctly (74%) and responded to 39/62 items from form-based items correctly (63%) on the posttest. Thus, out of 100, he responded to 67 of the items correctly. Unlike his peers, Paco was more
successful for items that originated in lexis-based LREs than in form-based items. Also, there was evidence that Paco was less successful for some types of tasks. The task with the highest percentage of correct responses was the story completion task (85%) followed by the dictogloss tasks (69%), the text reconstruction tasks (62%), and lastly, the decision-making tasks (53%). This pattern is unique: Paco is the only participant that had a higher recall rate on the story completion task. Moreover, unlike his peers, changes were observed between Times 1 and 2; however, there is not a clear pattern which suggest that task alone cannot account for his L3 development.

Finally, Table 52 presents the results for items derived from correctly and incorrectly resolved LREs. Overall, gains were observed, although the correctly recalled items were greater for items that originated in lexis-based LREs, namely, Paco recalled 20/27 lexis-based items (74%) and only 19/36 form-based items (53%). As would be expected, the gains were smaller for

---

<table>
<thead>
<tr>
<th>Deci-task</th>
<th>Lexis</th>
<th></th>
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<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>(0.0)</td>
<td>5/8</td>
<td>(62.5)</td>
<td>5/9</td>
<td>(55.6)</td>
<td></td>
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Table 51: Paco and L3 development
items that were created from incorrectly resolved LREs, namely, 21/37 of the items (57%). The results show that he was more successful for items that originated in lexis-based LREs (70%).

Table 52: Posttest scores: Correct responses

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<td>8/10</td>
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The analysis of Paco’s results from the oral posttests did not uncover any evidence of L3 gains: new lexical forms or syntactic structures were not incorporated into his spontaneous recordings, although this does not indicate that languaging was not at all conducive to L3 gains given his relative success with the paper and pencil component of the individual posttest.

In sum, the results suggest that participating in collaborative tasks provides learning opportunities. Overall, the findings indicate that as a group, they correctly recalled more than 75% of the items. Some important individual differences were uncovered, suggesting that not all learners benefit equally from languaging. Results show that David had a higher percentage of correct responses on the posttests (90%) and a higher number of items in the spontaneous samples (6 items). Conversely, Paco had the lowest percentage of correctly recalled items on the paper and pencil test (67%) and there was no evidence of incorporating items that originated in LREs. The findings from Marta and Felip were unexpected such that Marta scored higher on the posttests than Felip: 79% and 72%. Finally, the finding that participants correctly recalled items
that were created based on incorrectly resolved LREs during learner-learner interaction warrants closer examination. These findings are addressed in chapter 6. But first, in the next chapter, I present the results of the four focal participants’ beliefs.
In the previous chapter, I presented the results for the first three research questions. In brief, the analysis uncovered that the quantity of L1 mediation differed for the four focal participants. Also, in this context, there was limited evidence that learners relied on their L2 during task performance. While the analysis of the interaction data provides a rich description of task performance, it does not provide information regarding the learners’ beliefs on language mediation. As a foreign language teacher, my actions are impacted by my pedagogical beliefs. Similarly, learners come to class with preconceived notions regarding language learning. Therefore, the fourth research question examined the focal participants’ beliefs about L1 and L2 mediation during collaborative tasks.

As described in the methods section, to elicit the focal participants’ beliefs, I conducted four one-on-one interviews. The first three interviews focused primarily on their perceptions of the tasks, their attitudes towards collaborative work, and, to a lesser extent, their beliefs about language mediation. It was only during the fourth interview that explicit questions about their beliefs towards L1 and L2 mediation in the L3 classroom were included. This was to minimize the influence on their behaviors during task performance. In the case of David only, the timing of the fourth interview was problematic. Due to time constraints, the fourth interview was conducted in two phases and the second phase unfolded after an informal colloquium where I presented the preliminary results of the study to students and faculty. In light of the evidence that the presentation impacted David’s beliefs, the second session of the fourth interview is referenced minimally; however, it is considered to show tension in his views about how much L1 learners should use in the classroom. In the next two sections, I present the findings pertaining to
the learners’ beliefs about the benefits of native and nonnative language mediation that were discussed during the interviews. This is followed by the results of the specific mediating functions of the L1 and L2 that the participants identified during the interviews.

5.1 Exploring learner beliefs

In the present case study research, I assumed dual roles, that of the teacher and of the researcher, and over the course of the semester, I developed a more intimate relationship with my students than is perhaps typical. Although my priorities were my learners, I was aware that in developing a close relationship with my learners, my beliefs and research agenda could influence my students’ own beliefs and, equally important, their in-class behaviors. As such, throughout the semester, I tried to mask, to the best of my ability, the purpose of my study in order to avoid encouraging my participants into using or not using their L1 and L2 (Duff, 2008). Evidence of this cautiousness was documented in my researcher journal. For instance, after introducing the project to the group, I wrote: “I explained that I am interested in the benefits of using certain types of activities in the class but didn’t say anything about the use of L1 and L2” (January 28, 2011). Furthermore, in an effort to keep my research goals as covert as possible, during the interviews, although a number of language-related questions emerged naturally in the conversation, I limited the quantity of follow-up questions that could reveal the focus of the study. This said, the next section presents the findings regarding my learners’ beliefs about language use in FL classrooms.

5.2 Learners’ beliefs about language mediation

As discussed by Cook (2001), the use of the L1 in the FL classroom is a controversial issue. A shared sentiment among many teachers is that L1 use should be minimized or avoided; however, research adopting an SCT perspective has identified some potential benefits of L1
mediation for the purposes of learning a language (Antón & DiCamilla, 1998; Swain & Lapkin, 2000). In the present study, although the results indicate that the participants see some benefits of L1 mediation in the classroom, the findings from the interviews show an interesting picture: Marta and Paco, the less proficient learners, appeared to be more open to L1 mediation in the classroom, whereas David and Felip, although open to some L1 mediation, indicated a greater orientation towards L3 use only.

In her discussion about the ideal quantity of L1 mediation in the L3 classroom, Marta suggested that for her own benefit she should rely on Spanish only 30% of the time. Importantly, she explained that while she should be allowed to use her L1, it needs to be limited to the purpose of learning the L3. In other words, she expressed the belief that L1 mediation should be permitted only if learners are engaged in the task and if they are resorting to Spanish to support their activities, such as to clarify task-related questions and to support their exploration of grammar problems. Further evidence reflecting the belief that L1 mediation should be limited came from how she perceived her interactions with David and with Andrea. Although she felt that she collaborated well with both peers, she expressed a preference towards her interactions with Felip and David reasoning that they tried to maintain the flow of conversation in French. Her positive sentiment towards relying on the L3 discussed during her second interview is illustrated in Example 29:

Example 29: *Positive learner-learner collaborations via the L3*

1  Caroline: ¿Con quién más te gustó trabajar?  
   [Who did you like to work with the most?]
2  Marta: Con Felip me gustó mucho trabajar con él pero yo no aporté nada, bueno, aporté muy poco, entonces siento que él…no hizo todo pero me ayudó más a mí que yo a él.  
   [With Felip I liked it a lot but I didn’t help at all, well I helped a little bit, so I feel as though he… he didn’t do all the work but he helped me more than I helped him.]
3 Caroline: Y eso no te gustó?
[And you didn’t like that?]
4 Marta: Sí me gustó mucho porque el todo el tiempo habla en....bueno tratábamos de hablar en francés todo el tiempo y sabe más que yo. Luego Andrea trabajamos muy bien, aquí en el…but este, hablamos mucho en español.
[Yes, I liked it a lot because he always speaks well we tried to speak all the time in French and [David] knows more than me. With Andrea, we worked well, here during the…but we spoke in Spanish a lot.]
5 Caroline: ¿Por qué?
[Why?]
6 Marta: Porque no sé, a la hora de estar corrigiendo, no, es que no concuerda con esto y estoy y esto, como que mucho en español.
[Because I don’t know, in trying to make the corrections, right, this doesn’t agree with this and this, like a lot was in Spanish.]
7 Caroline: Ah!
[Ah!]
8 Marta: Entonces como que no debía de haber sido así. Y con David, pues, se nos complicó la actividad pero estuvo bien porque todo el tiempo hablábamos en francés, la mayor parte del tiempo. Y ya, fue divertido.
[So like it shouldn’t be like that. And with David, well, the activity was complex but it was ok because we spoke the entire time in French, the majority of the time. And so it was fun.] (2-712)

In the case of Paco, the results suggest that, similar to Marta, he believes that L1 mediation is beneficial but should be limited; however, Paco appeared to be less clear about how much L1 should be permitted. For instance, when asked to quantify the ideal amount of L1 and L3 mediation in the classroom, Paco began by suggesting that half of the interactions should be mediated via the L1. However, as illustrated in Example 30, Paco immediately revised his answer, perhaps due to my presence, and said that L1 mediation should be limited to specific situations, e.g., expressing ideas accurately and ensuring comprehension:

Example 30: Quantity of L1 use in the classroom

9 Caroline: En una clase de francés como la nuestra, ¿Cuánto español piensas que tú deberías usar?
[In a French class like ours, how much Spanish do you think that you should use?]
Although Paco appears to be uncertain about how much L1 mediation should be permitted, perhaps as a result of being prompted to reflect on this question by his language teacher, he was explicit in his belief that the L1 supports learners during task performance. He explained that in completing a task, learners have to think and rely on the target language, and given the complexity of learning a language, he maintained that learners should not be obliged to always use the target language. Rather, the quality of the work is what is most important: if the work is well done and the learners rely on L1 to process the information, he does not think that this is problematic.

Although Marta and Paco shared the belief that L1 mediation is beneficial and that learners should be allowed to rely on L1 mediation during task performance, David and Felip appeared to be more oriented towards L3-only mediation. For instance, during the first interview, David explained that he identified with the proponents of the Direct Method and the communicative approach which push for target language use only. During that interview, he explained that: “Entre más estés inmerso en el idioma, sin tener otro idioma de por medio, más fácil es que lo desarrolles” [The more immersed in the other language, without having another language in between, the easier it becomes to develop it.]. He elaborated on this notion when he
indicated that he did not agree with the idea that other languages can facilitate the language learning process:

Hay gente que sí, gente que podría decir es que en la enseñanza el otro idioma te ayuda. Pero yo creo que si estás aprendiendo otro idioma…te enfocas todo…en el idioma…hasta la forma de pensar. ¿Por qué? Porque si estamos haciendo una traducción mentalmente todo el tiempo, no se vuelve muy eficiente que ya después…o sea…que tengas que depender de un idioma para aprender el otro idioma.

[There are people that say that in language learning, the other language can help. But I think that if you are learning another language, you have to focus in the language, even your way of thinking. If we are doing a mental translation every time, it is not very efficient because later, we have to depend on another language to learn the other language] (1-12).

Although David explained that Spanish can sometimes be helpful, he maintained that in order to survive in his language classrooms L3 mediation is best. By focusing on one language only, he believes that is able to keep the languages separate.

As mentioned above, case study research presents some unique ethical dilemmas that should be carefully considered. In carrying out the study, I did not reveal the research goals; however, as a guest at Universidad Multilingual, I was asked to share the findings of the research at the end of the semester and David came to the research talk where I shared information concerning the goals of the research and my own beliefs. As a result of this, my research agenda and my teaching beliefs may have impacted his beliefs. Evidence from the second component of the fourth interview suggests that David was in the process of revisiting his beliefs about language pedagogy. He explained that rather than advocating an L3-only classroom, he thought that the native language could be helpful. In reference to learners using L1 mediation in the classroom, he said: “Usen el español como una herramienta. No digo que está prohibido hablar en el idioma materno pero sí hago que traten de esforzarse de hablar en el otro idioma”. [Use Spanish as a tool. I am not saying that the mother tongue should be prohibited but they should
try to speak in the other language] (4-18). During this interview, upon further reflection, David suggested that the Direct Method may have its limitations and that there is a place for multiple languages in the classrooms:

Si fuera cierto el Direct Method, no tendría sentido el multilingüismo, lo que es el codeswitching o codemixing. Hay mucha más gente que es multilingüe que monolingüe. Ya hasta es absurdo decir que el monolingüismo es normal. Los idiomas no tienen que estar peleados sino que se ayudan entre sí. Esa es mi idea. [If the Direct Method was right, multilingualism wouldn’t make any sense, in terms of code-switching or code-mixing. There are more people who are multilingual than monolingual. It’s even absurd to say that monolingualism is normal. Languages do not have to compete with one another but instead they support each other. That is my belief.] (4-18)

Despite having shared my research interest and beliefs, the interview data suggests that David continued to believe that in order to learn an additional language, L1 mediation should be minimized. Moreover, during the last interview, when asked about his own behaviors with respect to L1 mediation, he said that he should use “poco o nulo” [a little bit or none] (4-20). In sum, although my beliefs and my practices appear to have impacted David’s position, the interview data and the task performance data suggest that David is open to some L1 mediation but that he aligns more closely with target language mediation during classroom-based interactions. Also, there is evidence that beliefs are not static and that our interactions and meetings impacted his own beliefs.

The sentiment that the L1 is a useful resource was not shared by Felip. Throughout the interviews, Felip explained that learners should be relying on the target language when learning a FL and that relying on the shared L1 is less than optimal. When describing, for example, his interactions with Alejandra, he explained that they worked very well together, but one negative aspect of their interaction was that he mediated the completion of the task via the L1 than with others. He explained that while the L1 could provide some support, it is imperative that learners
use the target language and that even if learners use the L1 to support their interactions, they
should try to say it in French. His attitude is exemplified in Example 31:

Example 31: Felip attitude towards L1 and L3 use

13 Felip: Pues que traten de hablar en francés. No decirles que está prohibido el español porque luego también eso les ayuda. Pero pues sí, decirles que hablen en francés.
[Well they should try to speak in French. Not to tell them that Spanish is prohibited because later on it can also help them. But yes, tell students that they should speak in French.]

14 Caroline: Pero digamos que están muy metidos en la actividad…pero están usando el español.
[But let’s say that they are very much involved in the activity but they are using Spanish.]

15 Felip: Yo les diría “Essayez de parler en français”
[I would say ‘Try to use French’.] (4-15)

Throughout the semester, Felip expressed the belief that learners should be immersed in the
target language and that they have a number of tools at their disposal to support language
development (e.g., electronic dictionaries, on-line translators). Moreover, Felip shared his
sentiment towards L1 mediation by the teacher. He argued that teachers should avoid L1 mediation and explained that only in exceptional cases where the L3 could be overwhelming to the learners, should teachers consider mediating the classroom interactions via the L1. In conclusion, Felip’s position regarding L1 and L3 mediation is clear: learners and teachers need to minimize, if not avoid L1 mediation and engage in the target language.

With the first section of the current chapter, I presented the findings regarding the focal participants’ beliefs about L1 mediation in the classroom. With respect to the L2, the analysis did not uncover clear evidence that learners believe that the L2 is beneficial. Overall, the focal participants mentioned that they seldom spoke in English in this context. In short, the results indicate that Marta and Paco are more open to L1 mediation, whereas David and Felip are more
oriented towards working in and with the target language. The next section presents the specific functions that the L1 and the L2 serve during learner-learner interaction as discussed by the focal participants.

5.3 Functions of language mediation

Overall, although some learners were more open to L1 mediation, the dominant sentiment is that learners should be working in and with the L3. In addition to identifying their general beliefs, five recurring themes in terms of specific L1 functions were identified in the interview transcripts, such as vocabulary deliberations, grammar deliberations, task management, satisfying social functions, and generating ideas. Also, a subset of these functions was discussed vis-à-vis the L2 by the participants. These included vocabulary deliberations, grammar deliberations, and satisfying social functions.

5.3.1 Vocabulary support

From the learners’ perspective, one of the dominant functions of the L1 is to provide a scaffold for vocabulary building. Two vocabulary building functions were discussed by the focal participants: (1) providing/requesting translations from peers and/or the teacher and (2) engaging in personal lexical searches.

The four focal participants explained that the L1 allows them to discuss vocabulary and also elicit translation equivalents from their peer. Felip explained that: “A veces digo ‘Se me olvidó como se dice esto’ y luego sale la plática [en español]” [Sometimes I say ‘I forgot how to say something’ and then we start chatting [in Spanish]] (1-15). Similarly, Marta said that when she struggles to find a word in the L3, she turns to Spanish to support the lexical search.

Although each participant discussed this function, there was greater evidence of Marta turning to her L1 during task performance data for vocabulary searches, as illustrated in Example 32. In
Line 16, Marta provides the term in Spanish and immediately asks David if he knows the translation equivalent, which he provides in Line 21.

Example 32: L1 use for vocabulary

16 Marta:  Era un roomie, ¿cómo se dice?
[She was a roommate, how do we say?]

17 David:  Es attend, attend. Oui, c’est un roomie
[It’s wait, wait. Yes, it’s a roommate]

18 Marta:  Oui, c’est un roomie
[Yes, it’s a roommate]

19 David :  Quand?
[When?]  

20 Marta :  Ce n’est… no…oui oui c’est un roomie, ¿Cómo se dice roomie roomie?
[It’s not…no…yes yes it’s a roommate, how do we say roommate?]

21 David:  Colo … collocateur… o ¿qué? (laughter)
[Room…roommate… or what? (laughter)]

Although the focal participants discussed that they sometimes requested help explicitly, David also explained that the L1 allows him to engage in private lexical searches, which are sometimes externalized (Antón & DiCamilla, 1998). For instance, David claimed that, although he prefers performing searches for lexical equivalents (rather than turning immediately to Spanish), when he is unable to activate a word, he engages in a private search: “Si no puedo, en ese momento, hago como una traducción del español al francés. Pienso como lo diría en español, lo traduzco y lo digo.” [If I can’t, in that moment, I do a translation from Spanish to French. I think about how I would say it in Spanish, translate it, and then say it [in French]] (1-5). In other words, rather than asking a peer for help, he engages in private searches. However, because he was collaborating with a peer, the searches were sometimes externalized. An illustration of this scenario is provided below. David is looking for the word to doubt and, while talking to himself, produced both the L1 and its L3 equivalent:

Et curieusement la fille cherchait un colocataire est pour ça non et il sans dudar o comment dire dudar la doute douter … sans douter.
[And ironically, the girl looked for a roommate and for this, no, and he without doubt or how to you say to doubt, a doubt, doubting… without doubting.]

During the interview, there was some evidence that vocabulary searches were also supported via the L2. In the case of Marta, specifically, she explained that she also turned to English when she is unable to find a lexical equivalent. In describing her collaboration with Jessica, Marta recalled having turned to English because English words were sometimes activated first, as illustrated in Example 33:

Example 33: Discussing the English mediation for vocabulary searches

22 Marta: Me desespero…o sea si de plano no sé qué onda, lo digo en inglés o en español.
[I lose patience… and if I have no idea, I say it in English or in Spanish.]

23 Caroline: ¿Por qué en inglés?
[Why in English?]

24 Marta: “A lo mejor como que hay palabras que en español no es igual, es raro, y en inglés me llega primero”
[Perhaps there are words in Spanish that are not the same, it’s strange, and I think of the translation first in English.] (3-6).

During task performance, evidence that vocabulary building was supported via the L2 was noted. In some cases, English words were activated first, as exemplified in Example 34. In Line 25, Jessica is talking about Indian traditions and informs Marta that cows are sacred (information provided on Jessica’s materials). In Line 26, Marta seeks to clarify the information that was provided to her and rather than providing the French word, she uses the English word cow. Later, in Line 30, Marta inquires explicitly about the translation equivalent for the target item.

Example 34: English vocabulary searches

25 Jessica: Vaca, no se sacrifica porque son sagradas, sacrée es sagrada.
[Cows, they are not sacrificed because they are sacred, sacred is sacred.]

26 Marta: Les cows, ¿no?
[The cows, right?]
Although Marta did not make allusions to English very frequently during the interviews or during the tasks, she informed me that she feels that some French words have stronger correspondences in English and that it is sometimes easier to explain a word in English, as illustrated in the next example:

> There are certain words, right now I can’t give you an example, but there are words that in French are different in Spanish or they are said or are similar to English. So we make the association to explain a word, I don’t know, a word comes out in French and we want to explain it in Spanish, but it is easier to explain it in English. (4-17)

Despite this, she maintains that the L2 does not have a place in the classroom. Similar to Marta, Paco maintained that he makes English-based lexical associations, albeit only sometimes:

> When I don’t find an associated Spanish word in French, I think “What is the word in English?” and sometimes... they are similar, so sometimes I try it, but it’s not very often (4-24). In the task performance data, there was no evidence of Paco engaging or initiating this process.
Whereas Marta and Paco sometimes discussed the use of the L2 for vocabulary functions, Felip maintained that using the L2 for vocabulary searches was not a useful strategy. He explained that the similarities between French and Spanish were more salient, as illustrated in the following example: “El saber español, luego inglés y luego francés, facilitaba porque de español a francés sí pero luego a inglés como que… no. [To know Spanish, then English, and then French, it was helpful because Spanish and French yes but then to English, like not really.] (4-18)

Overall, the interview data suggests that the focal participants sometimes draw on their L1 to ask for translation equivalents or to engage in private lexical searches which are externalized. Evidence that L2 knowledge is activated for lexical searches was limited to Paco and Marta.

5.3.2 Discovering the grammar

Vocabulary knowledge comprises a crucial component of language learning. A second area includes an awareness and ability to use the grammatical structures. Throughout the interviews, David, Marta, and Paco maintained that through the L1, they can process the information and discuss grammatical structures. For instance, Marta, after being prompted to position herself as a language teacher, said that an understanding of the concepts can be solidified through L1 mediation, as illustrated in Example 35.

Example 35: L1 mediation to discover the grammar

<table>
<thead>
<tr>
<th>Line</th>
<th>Transcript</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Marta: Para aclarar dudas que tienen que ver con la actividad y el tema. O con problemas de gramática por ejemplo. [To clarify doubts that they have that are related to the activity and the theme. Or with grammar problems for example.]</td>
</tr>
<tr>
<td>34</td>
<td>Caroline: ¿Por qué? [Why?]</td>
</tr>
</tbody>
</table>
| 35   | Marta: No sé. Si estoy como profesora dando una clase de gramática la este….
No sé la fórmula en la que se construye la voz pasiva, para explicar a los alumnos, obviamente van a querer traducirlo para que se les haga más claro entonces en estos casos está bien.

[I don’t know. If I am a teacher giving a grammar class... The formula that is used for the passive voice, to explain it to the students, obviously they will want to translate it to make it clearer. In those cases [using Spanish] is all right.]

36 Caroline: Entonces para ti, ¿Te sirve hacer eso?

[So for you doing that works?]

37 Marta: Sí porque es una construcción muy parecida al español porque se usan los dos... verbos así se dice, ser y haber.

[Yes because it is a similar construction to Spanish because they are both used...the verbs to be and to have.]

Paco maintains that if the quality of the work is good and they are aware of the rules, then turning to the L1 is not problematic: “Aunque también depende de si el trabajo que entregan está bien o está mal...porque digo, si están procesando en español pero se saben las reglas de lo que hemos visto en clase, pues no importa” [Although the use of language also depends on whether the submitted work is good or if it’s bad... because if they are processing the information in Spanish but they know the rules that we have studied in class, well, it doesn’t matter.] (1-22)

Finally, in Felip’s case, he discussed that in the earlier stages of French language acquisition, comparing grammatical constructions can be useful due to the structural similarities between French and Spanish, but explains that, given his stronger linguistic abilities in the L3, he makes fewer connections between the L1 and the L3 (4-17).

Overall, evidence that the L1 can provide a scaffold for grammar was moderate in the interviews; however, task performance data suggests that learners rely on their L1 to support grammar discussions. Example 36 illustrates this process. Marta and Thomas are discussing the passive construction and in Line 38, Marta asks a question in Spanish and turns to French for the metalinguistic term. In Line 42, she continues to discuss what should be done, via the L1, and inserts the target structure in French. In Line 46, Marta asks about the choice of the auxiliary
verb via her L1 and uses the L3 for the target word ‘devenir’ and ‘être’ as well as the metalinguistic term ‘passé composé’.

Example 36: Supporting grammar discussions via the L1 mediation

38 Marta: Pourquoi? ¿No está en voix passive? Et l’écran devenir rouge
[Why? Isn’t it in the passive voice? And the screen to become red.]
39 Thomas: Oui mais
[Yes, but]
40 Marta: Ha sido
[Has been]
41 Thomas: C’est
[It’s]
42 Marta: Ok, entonces sería más bien ont été fermé et l’écran
[Ok, so then it should be have been closed and the screen.]
43 Thomas: L’écran a devenu
[The screen has become]
44 Marta: A devenu rouge
[Has become red]
45 Thomas: Rouge
[Red]
46 Marta: Devenir ¿No va con être cuando es passé composé?
[To become doesn’t it go with to be when it’s in the simple past?]

A second function that was discussed – this time by Marta and David – is a translating function. For instance, Marta explains that by translating what they are trying to write, learners can clarify what they are trying to say. By translating the structure, it becomes possible to identify the grammatical gap or error. In Example 37, David and Andrea are trying to determine the correct auxiliary verb for the verb ‘to fall’. In French, this particular verb requires the auxiliary ‘to be’. In Lines 47, 48, and 49 they are producing the two alternatives, e.g., to have and to be followed by the participle. In Line 50, David translates the target structure directly into Spanish testing the two options.

Example 37: Translating grammatical structures

47 Andrea: Est tombé ha caído est tombé o
[Has fallen has fallen has fallen or]
David: Est tombé?
[Has fallen]

Andrea: O a tombé
[Or has fallen]

David: Je, mais non, fue inventado fue caído non fue ha caído est tombé
[I, but no, was invented was fallen not was has fallen has fallen]

The positive role of L2 mediation during grammar-focused discussions was supported primarily by Marta. For instance, Marta explained that she sometimes relies on L2 mediation to compare similar English-Spanish structures such as passive voice and the conditional, thus suggesting that L2 mediation can be a useful tool. This is exemplified in Example 38:

Example 38: Comparing L3 structures to L2 structures

Caroline: Pero si ves una estructura que no entiendes por ejemplo, la de gérondif.
[But if you find a structure that you don’t understand, for example the gerund.]

Marta: Ah, voy directo al español.
[I go right to Spanish.]

Caroline: Vas directo al español.
[You go right to Spanish.]

Marta: Aha porque se parece un poco más...en las preguntas se parece al inglés… Como en inglés le cambias el… en vez de decir you could es could you lend me that pen. En francés es parecido, no. En español casi no se usa.
[Yes because they are more similar...the questions are more similar to English. Like in English you change the... instead of saying you could it’s could you lend me that pen. In French it’s similar, right? In Spanish we hardly every use it.] (3-7)

Although Marta provided evidence during the interviews that English serves some grammar functions, there was limited evidence of L2 mediation during her task performance for grammatical purposes. Paco and Felip, on the other hand, maintained that they didn’t turn to English to compare grammatical aspects. From Felip’s point of view, translating into English is time-consuming and, therefore, it is better to try to say it directly in the target language: “Se ocupa en el momento de utilizar el idioma cuando te quieres comunicar…de aquí qué piensas en
inglés…y que luego lo traduces a español y luego a francés, como que es más tardado. Se me hace mejor pensar en el idioma…lo tratas de expresar en el idioma” [You use it in the moment when you want to communicate… to think in English and then translate it to Spanish and then to French, it’s more time-consuming. It’s better for me to think in the language… You try to say it in the language] (4-14). Paco explained that he never turned to English for grammatical aspects.

However, it was interesting to note that Paco was the only focal participant who was involved in an exchange during the tasks where explicit comparisons between French and English were discussed. For example, during the first decision-making task, Paco’s peer Ana created a sentence about the price of the apartment and used the 3rd p.s. pronoun ‘il’ to refer to the apartment. In turns 48 and 49, they discuss the dummy pronoun it, initiated by Ana, and they conclude that French does not have an equivalent. This exchange is illustrated in Example 39:

Example 39: Comparing French grammatical construction to English

55 Ana: Il coûte trois cents
        [It costs three hundred]
56 Paco: ¿Sí se puede decir ‘il’ como de un lugar como si fuera una persona?
        [Can you say ‘it’ for a place like you would for a person?]
57 Ana: Sí sí… depende como lo dices. Eso cuesta
        [Yes yes, it depends how you say it. It costs]
58 Paco: ‘eso’ no es ‘eso’
        ['it’ is not ‘this’]
59 Ana: No hay ‘eso’, no hay ‘it’
        [There is no ‘it’, there is no it]
60 Paco: It
        [it]
61 Ana: No
        [No]
62 Paco: Il coûte, se me hace raro ‘il’ como si fuera hablando de una persona.
        [It costs, it seems strange ‘it’ as though we were speaking of a person.]
There were other instances similar to this where Paco was involved in making English associations, but they were never initiated by him. Thus, the task performance data suggests that Paco relies minimally on this function, unless initiated by his peers.

5.3.3 Task requirements

To examine task type effects on the patterns and functions of language mediation, I incorporated in the tasks two distinct components. During his interviews, David explained that the L1 mitigates the process of satisfying the task requirements. For instance, by relying on L1 mediation, he is able to separate the stages of the tasks, which simplifies the task. Example 40 from David’s first interview illustrates this idea:

Example 40: L1 mediation for task requirement functions

63 David: El español lo usábamos para separarlo por las etapas... de oral y escrita... en ese lapso era en español era como vamos a la siguiente y entrábamos otra vez al francés”
[We used Spanish to separate the stages of the task... from oral to written... and during this lapse, it was in Spanish... it was like 'let’s go to the next’ and then we would continue on with French.]

64 Caroline: ¿Por qué?
[Why?]

65 David: Pues no sé, como que... será de que... tal vez sea algo malo... no malo... pero lo vemos como una situación... y que la situación tiene sus reglas y una de las reglas es hablar francés.
[Well, I don’t know, like maybe it’s because... maybe it’s something bad... not bad... but we see it as a situation... and the situation has its rules, one of which is to speak French.]

66 Caroline: Ah!
[Ah!]

67 David: Y luego viene la otra, la otra situación y en ese lapso de tiempo como que hay un espacio vacío que... se puede hablar en español.
[And then the we have the other situation and in that lapse of time like there is an empty space where... we can use Spanish]. (1-23)

Another benefit of using the L1, from the participants’ perspective, is that it enables them to clarify the instructions of the task. The next excerpt from Paco illustrates this point: “Si es un
asunto relacionado con la clase… si van a hablar [en español] de ‘Oye, ayer en el antro’ o cosas así… no… pero si son cosas como ‘Oye, entendiste el ejercicio’ eso sí.” [If it is something related to the class… if they are going to talk [in Spanish] about ‘Hey, what about yesterday at the club’ or things like that… no… but if they are saying things like ‘hey, did you understand the activity, then yes]. (4-22).

Although the analysis of the task performance data identified that Marta frequently turned to the L1 for task management purposes, she did not discuss using the L1 for task-related aspects. Finally, Felip, who seldom used the L1 for this function, did not address this function either. In sum, the three themes identified in the interviews are in line with the functions that were identified during their task performance.

5.3.4 Social functions

So far, I have presented the results for the fourth research question, which examined the functions that the L1 and L2 serve from the focal participant’s view. The finding that language provides support for vocabulary functions, for grammatical explorations, and for satisfying the task requirements was supported by the task performance data. In addition, the focal participants discussed relevant social functions that were not identified in the task performance data. Two distinct social functions were identified: building rapport and facilitating the interaction.

In this context, given that the learners share similar linguistic profiles, the focal participants explained that it was natural and more personable for them to speak in their native language. In other words, through the L1, learners build rapport. For instance, in the first interview, David explained that through Spanish, it becomes possible to maintain a certain level of trust and comfort with one’s peer: “Y sobre todo… también… no sé… hasta para una como familiaridad con la compañera…” [And above all… also… I don’t know… there is like a certain
familiarity with your partner] (1-24). During the exit interview, David expanded on this idea and claimed that through the L1, it becomes possible to foster an informal and pleasant learning environment: “Ahorita ocupo menos [español] pero también por el hecho de que luego es por el ambiente o la ‘chorcha’ o la ‘parranda’…o sea cuando me llevo bien con el grupo…pues como que el español sale.” [Now I use less [Spanish] but also, for the simple reason that there is an informal environment... because when I get along well with the group... well Spanish will naturally come out and I use it for things that I say ‘oh, I can say this in French also, but I say it in Spanish] (4-20).

The findings also indicated that the more proficient learners were cognizant of the proficiency differences and, at times, used that knowledge to accommodate their peers’ needs. For instance, Felip, who has a preference towards target language use only, explained that it can be useful to use the L1 to help their peers. In other words, as a more proficient peer, he accommodated his peer’s proficiency. This reflects a peer-oriented responsibility. The following excerpt illustrates this idea:

Pues con Thomas me acuerdo que al principio de la clase, como que no le entraba el francés. Era peor hablarle en francés y además tratar de corregirle, entonces como que me di cuenta de que primero tenía que aprender. Entonces si me acuerdo de que le decía en español y luego… tratar de que entendiera en francés. [Well with Thomas I remember that at the start of the semester, he didn’t seem to get French. It was worse to speak in French and moreover trying to correct him so I came to realize that first he needed to learn. So, yes, I remember that I would first say it in Spanish and later on…try to get him to understand in French] (4-18).

Similarly, the interview data also suggests that the same more proficient learners sought to create opportunities for their less proficient peers to use the L3. In fact, David explained that while working with Alejandra, he tried to open up the floor to her to give her more opportunities to use the L3:
Con Alejandra yo traté de que fuera puro hablar en francés...y luego pues cuando fue la conversación y yo dije, no pues que ella hable más francés para que esté más segura y ya después luego yo le hago más preguntas o algo.

[With Alejandra, I tried to ensure that it would be only French... and then, when it was the conversation, I would say, no well, she should speak more French so that she feels more comfortable with the language and then later I ask her more questions or something] (1-11).

In sum, the findings suggest that the more proficient learners used the L1 to maintain a positive working environment. This function was not identified by Marta or Paco.

5.3.5 Generating ideas

During the decision-making task and the story completion task, the four focal participants relied almost exclusively on their L3 to generate ideas which suggests that the learners in this context are proficient enough in the L3 to compose and generate ideas directly via the target language. However, Marta discussed the role of the L1 to support the process of generating ideas. Again positioning herself in the role of the teacher, she explained: “Si están haciendo un escrito, por ejemplo, y primero lo plantean en español, y después lo traducen al francés y después lo escriben, no me pondría tan estricta” [If they are doing a written activity, for example, and first they frame it in Spanish, and then they translate into French, and then they write it, I would not be very strict] (4-13). However, during her interactions, she seldom generated ideas in Spanish. Therefore, given the limited evidence of L1 mediation for this function during task performance, the interview findings are only suggestive.

In this chapter, I presented the results from the interviews and identified some connections between the focal participants’ beliefs and task performance data. Overall, the beliefs appear to be in alignment with their behaviors. To summarize, the interview data suggests that learners see some value in using other linguistic resources but, overall, they felt that L1 mediation should be minimal during learner-learner interaction and that the L1 and, to a much
lesser extent the L2, can mediate the completion of the tasks. However, to provide an accurate representation of the focal participants’ beliefs, I want to reiterate that the general sentiment in this context is that learners believe that they should strive to communicate in the target language and minimize the quantity of L1 mediation. For instance, Felip was the least tolerant or open to the idea of using the L1 or the L2 to mediate the completion of the tasks, whereas Marta and Paco appeared to be more tolerant. In the case of David, the findings suggest that he was in the process of reevaluating his beliefs, partly due to his participating in the study, but that overall, he felt as though learners should strive to use the L3 in FL classrooms.
6 DISCUSSION AND CONCLUSION

6.1 Summary of the research

The process of learning an FL as an adult is a complex and long-term endeavor; yet, many individuals become competent users of multiple languages. Despite the fact that multilingualism is the norm in the world today, research reporting on multilingual learners and the acquisition of additional languages is scant. As a result, our understanding of the mediating functions of native and nonnative languages remains incomplete. Also, researchers reporting on L3 acquisition adopt a cognitive approach and focus on cognitive and psycholinguistic processes underlying L3 development. The impact of learners’ beliefs and previous language learning experiences on L3 development is an underexplored area. The aims of the present study were to investigate the mediating functions of the L1 and the L2 through an SCT lens in order to contribute to our understanding of L3 development. The present study was guided by four research questions:

RQ 1: What mediating functions do language(s) serve during four types of collaborative tasks, over time in an L3 classroom?

RQ 2: How does task type impact the occurrence and resolution of language-related episodes (LREs) in the L1, L2, and L3 by individual learners?

RQ 3: How do LREs lead to L3 development?

RQ 4: What are learners’ beliefs about using their languages during collaborative tasks?

To examine these questions, learners completed four types of pedagogical tasks with unique features (e.g., type of input and output, linguistic focus) that were devised based on the department-mandated syllabus and learning objectives of the beginner-intermediate French
course ID 251. These tasks were implemented over an academic semester during regularly scheduled class times with a group of 18 learners. The four types of tasks included a decision-making task, a story completion task, a text reconstruction task, and a dictogloss task, and each task type was completed on two separate occasions. To examine the relationship between task performance and L3 development, learners completed four posttests, which included an individual oral component and multiple-choice tailor-made posttest items that directly corresponded to the lexis-based and form-based LREs discussed during learner-learner interaction. Finally, the focal participants completed four one-on-one interviews outside regularly scheduled class times as a means to gain a richer perspective regarding their performance and their beliefs about language mediation. The data thus consisted primarily of three sources: (1) task-based learner-learner interaction data, (2) posttest responses, (3) and interview data. In this chapter, the findings for each research question are discussed in light of previous literature, and pedagogical and theoretical implications drawn from the present study are considered.

6.2 Research question 1

*What mediating functions do language(s) serve during four types of collaborative tasks, over time in an L3 classroom?*

Researchers have examined L1 mediation during collaborative tasks by learners of an L2. To further our understanding of language mediation, the present study investigated native and nonnative language mediation during learner-learner interaction by learners of an L3. The initial research question was put forward to identify general patterns of language mediation and to examine specific mediating functions of the learners’ L1, L2, and L3 as they completed four types of collaborative tasks.
6.2.1 General patterns of language mediation

The investigation of language mediation in FL classrooms is an underexplored area, especially with learners of an L3. To the best of my knowledge, this is the first study that has examined the general patterns of L1, L2, and L3 mediation as learners complete a series of pedagogical tasks in a classroom-based context.

The findings suggest that, in this context, learners limit L1 mediation during learner-learner interaction and try to increase the number of opportunities to mediate the completion of the tasks via the target language. This partially supports previous findings (e.g., Alegría de la Colina & García Mayo, 2009; Darhower, 2002; Storch & Aldosari, 2010; Storch & Wigglesworth, 2003; Swain & Lapkin, 2000). Also, similar to previous studies, the present analysis of individual learner performances suggests that within a single classroom, the quantity of L1 mediation varies across learners (Storch & Aldosari, 2010; Storch & Wigglesworth, 2003; Thoms, et al., 2005). For instance, the analysis of task performance data indicates that Felip and David relied only minimally on their L1 compared to Marta and Paco who relied more heavily on L1 mediation. Three factors that are believed to have impacted L1 mediation are now considered: (1) learner beliefs and attitudes towards native language mediation, (2) task difficulty, and (3) learner proficiency.

The first of these, learner beliefs and attitudes, has been shown to play an important role in the quantity of L1 mediation (Alegría de la Colina & García Mayo, 2009; Storch & Aldosari, 2010; Storch & Wigglesworth, 2003). In the current study, the results between L1 mediation produced during task performance and learner beliefs about the quantity of permissible L1 mediation in the classroom are in line. For instance, Marta and Paco, who appeared to be more open towards a personal reliance on L1 mediation to discuss task-related aspects, had a higher
global percentage of L1 mediation and relied on L1 mediation for a greater variety of functions during task performance. Although Felip and David also recognized some benefits of native language mediation, they tended to have smaller percentages of L1 mediation during task performance. Felip and David’s beliefs reflect a self-oriented responsibility to communicate in the target language. Example 41 from Felip’s interaction with Alejandra, a classmate, illustrates his self-oriented responsibility to complete the task via the L3, despite his peer’s reliance on L1 mediation.

Example 41: *L1 and L3 alternation between learners*

1 Alejandra: Fasci.. plus fascinante…no sería o si no sería plus fascinante, no ¿verdad?…
   [Fasci… more fascinating… wouldn’t it be or yes wouldn’t it be more fascinating…no, right?… ]
2 Felip: Autant
   [As much as]
3 Alejandra: O si está bien aussi. También
   [Or yes it is correct also. Also]
4 Felip: Je ne suis pas sûre si c’est autant ou aussi…
   [I am not sure if it’s as much as or also]
5 Alejandra: Aquí se…
   [Here it’s…]
6 Felip: Avec un adjectif ou un adverbe, c’est…
   [With an adjective or an adverb, it’s…]
7 Alejandra: C’est un adjectif, ‘fascinant’
   [It’s an adjective, ‘fascinating’]

The findings further suggest that beliefs impact the participants’ actions during learner-learner interactions. David explained that he tries to create opportunities for his peers to mediate the completion of the task via the L3, what I identify as a peer-oriented responsibility. In Example 42 below, David discusses his interaction with Alejandra when working on the first decision-making task:

Example 42: *Creating opportunities for L3 mediation*
Con Alejandra yo traté de que fuera puro hablar en francés y a veces hasta luego la dejaba más hablar para que ella pudiera trabajar... y luego pues cuando fue la conversación y yo dije, no pues que ella hable más francés para que esté más segura y ya después luego yo le hago más preguntas o algo.

[With Alejandra, I tried to ensure that it would be only French and sometimes I would let her do most of the talking so that she could work... and then, when it was the conversation, I would say, no well, she should speak more French so that she feels more comfortable with the language and then later I ask her more questions or something] (1-11).

This finding suggests an interesting relationship between language mediation and learner agency. Learner agency entails an awareness of individual actions vis-à-vis a social context in which participation unfolds. Supporting Donato (2000), learners thus appear to bring to each interaction a set of beliefs and assumptions, shaped by their sociocultural histories (e.g., previous participation in social events and interactions), which impacts the nature of their present interactions. Findings from this study thus provide evidence that language mediation serves both important social functions (e.g., attempt to influence the nature of the interactions via language mediation patterns) and cognitive functions (e.g., facilitate the completion of the task) during learner-learner interaction.

A second factor that could explain the judicious use of L1 mediation is task difficulty. Although each task within the four task types had comparable input (e.g., number of words, length of passage), the complexity of the expected output (written products) and the grammatical structures that learners needed to manipulate increased over time. The results from the current classroom-based study suggest that increasingly difficult tasks and structures may lead some learners to revert to the L1 more frequently as a cognitive tool to help them orient themselves towards the demands of the task. For instance, the first writing component required learners to include the perfect past, the imperfect past, and relative pronouns while producing a 100-word narrative. For the second writing component, however, they worked with past tense constructions
in addition to the conditional and the subjunctive mood in order to produce a 200-word flyer. The manipulation of multiple tenses and structures may have increased the cognitive demands and therefore pushed learners to subconsciously rely more frequently on L1 mediation as a cognitive resource.

The third factor that could explain patterns of L1 mediation is learner proficiency. Results from the French proficiency tests led to the identification of proficiency differences between the four focal participants. The highest scores on the proficiency tests were obtained by David (8.2) and Felip (7.4). A larger difference in proficiency was identified for Marta (5.7) and Paco (4.7). In light of the finding that L1 mediation was more salient during Marta’s (25%) and Paco’s (19%) task performance data, another potential explanation for the observed differences may be attributed to learner proficiency in the L3. This finding is in line with Storch and Aldosari (2010) who found that the lower proficiency dyads (L-L) relied more heavily on L1 mediation compared to the higher proficiency dyads (H-H).

In light of the results, there is evidence that three factors impacted the quantity of L1 mediation during pedagogical tasks in a formal classroom-based context. One of the aims of the present study was to also investigate L2 mediation by learners of an L3. In the present context, the focal participants seldom relied on L2 mediation. The limited number of L2 +L1/L3-bilingual turns focused primarily on vocabulary deliberations and there is no evidence suggesting that task type impacted L2 mediation. Next, I discuss two explanations that could account for the limited evidence of L2 mediation: the Psychotypological Hypothesis and the language mode.

The Psychotypological Hypothesis (Kellerman, 1983; O Laoire & Singleton, 2009) stipulates that learners’ perception of the typological distance between Language A (Spanish) and Language B (English) will impact how much of Language A and/or Language B learners
will rely on in order to learn an L3 (French). In the present study, learners turned to the L1, the language that they perceived as more typologically similar, to mediate the completion of the tasks. For example, David explains during the interviews that he turns to Spanish given the structural and lexical similarities between French and Spanish. Further evidence to support this idea comes from David’s discussion of his perception of German and English. In Example 43, when discussing English language mediation, he explained that:

Example 43: Typological similarities

En el francés, el español es con el que más me apoyo. El inglés yo creo que nunca aparece, en cambio al alemán, si lo mezclo con el inglés porque son familia.

[In French, I rely a lot on Spanish. English, I think that it never appears, but, in German, I do mix it with English because they are language families]. (4-23)

Evidence for the Psychotypological Hypothesis was also uncovered from erroneous lexical searches. In Example 44, David provides a translation equivalent to the verb to wait. In Spanish, to wait is ‘esperar’ and in French it is ‘attendre’; however, in French the verb ‘esperer’ exists but means ‘to hope’ (i.e., espère is a false cognate):

Example 44: Erroneous lexical searches

| 8 Marta: | Et la femme est ‘esperando’ … ‘esperar’ |
| 9 David: | Sie, pardon, elle espère |
| 10 Marta: | Elle espère† |
| 11 David: | Espère |
| 12 Marta: | *Et la femme l’espère. |

The learners’ discussion of the language proximity between Spanish and French and evidence from erroneous lexical searches provide some evidence that language (psycho)typology

13 Unintentional activation of German
is an important factor. Thus, a possible explanation for the limited amount of L2 mediation and instead of L1 mediation lies in the larger typological distance between English and French and Spanish and French.

A second explanation that could account for the limited amount of L2 mediation is related to the language mode (Grosjean, 2007, 2008). Grosjean (2007, 2008) argues that the degree of activation of each language is contingent upon different factors such as the context of use and the interlocutors’ linguistic background. Given that in this context, learners relied primarily on L3 mediation and, to a lesser extent, L1 mediation, learners appeared to be in a bilingual mode: French and Spanish. English did not appear to be (highly) activated. In the next section, the social dimension of language use (i.e., the context), believed to impact the activation of the learners’ languages is examined.

The focal participants completed a series of pedagogical tasks in a formal language classroom. The underlying expectation is to produce target language output during learner-learner interaction. As such, learners may have been hyper-aware of the linguistic expectations of the FL classroom context. Bono (2007) suggests that some learners may intentionally attempt to minimize or neutralize the influence of other languages in formal settings. Interview data supports this view. For instance, Marta explained that “mi canal está en francés, y el inglés, en neutro” [my mindset is in French and English is neutralized] (3-7). David said during his first interview that he tries to separate his languages into ‘capsules’ and when in a French class he activates the L3 via the phonology to stay in the French mindset, as illustrated in Example 45:

**Example 45: Language activation**

Algo que uso yo para predisponerme es como la pronunciación…. Primero yo visualizo la pronunciación, y ya la pronunciación me empieza a desenvolver todas las palabras…. Porque digo ‘así suenan todas las palabras del francés’ y entonces me meto por ahí.
[Something that I use to predispose myself to the language is pronunciation. First I visualize the pronunciation and with the pronunciation, the words begin to unravel... Because I say to myself ‘this is how all the words in French sound’ and I get into it this way]. (1-6)

A second aspect related to the formality of the classroom context lies in the participants’ perception of the tasks. In this study, tasks were operationalized as holistic activities that engage language use in order to achieve authentic goals thus moving away from solely linguistic outcomes. The tasks reflected real situations and scenarios that were relevant to the participants’ lives (e.g., planning a visit, selecting a place of residence, reconstructing of a message about technology problems). Nevertheless, as a result of completing these tasks within a classroom setting, the authenticity of the tasks may have been questioned subconsciously by the learners. This may have led learners to perceive these as formal language tasks. It would thus seem plausible that in this formal setting, participants did deactivate their L2 and, to a lesser degree, their L1. Returning to the language mode for trilingual speakers (Grosjean, 2008), the context could have subconsciously pushed learners to place themselves in a bilingual mode where Language A is more strongly activated (i.e., the L3), Language B is only minimally activated (i.e., L1), and the L2 is not activated (see Figure 2 above).

While the formal classroom context may impact the degree of activation, the language of the interlocutor may also contribute to deactivate one or multiple languages. As previously discussed, Marta’s L2 was slightly more activated when working with Alejandra than when working with Felip for example. Example 46 exemplifies how Marta characterizes herself and her peer:

Example 46: Social factors that impact L2 mediation

13 Caroline: Y con ella, ¿En qué idioma hablaron? [And with her, which language did you use?]
Marta: Español, francés, e inglés… un poco…muchas veces no ha pasado. Casi siempre no pasa que hablamos en inglés…

[Spanish, French, and English… a bit… it didn’t happen often. It didn’t happen very often that we used English.]

Caroline: ¿Por qué?

[Why?]

Marta: Porque somos… ¿Conoces el termino pocho?14

[Because we are… do you know the term pocho?]

Caroline: No

[No]

Marta: Porque hay zonas turísticas en México donde hay mucho americano y mexicano entonces la vida de los locales se vuelve como muy cercana a la vida del inglés entonces a la hora de hablar entre amigos, meten el francés… inglés…

[There are tourist areas in Mexico where there are many Americans and Mexicans and our lives begin to resemble an English-like lifestyle so when we speak with our friends, we use French… English.]

When Marta collaborated with Alejandra, she appeared to be in trilingual mode: the base language was French, Spanish was activated and, to a lesser extent, English. Previous social interactions and their familiarity with one another’s’ language background may have increased the activation of their shared L2. However, while working with Felip, she appeared to be in bilingual mode: French and Spanish were activated. Having had limited opportunities to interact in naturalistic contexts, Marta may have subconsciously aligned her languages with that of her peer.

In review, the findings from the current study contribute some information to our understanding of the social factors that impact the quantity of L1 and L2 mediation in one L3 classroom, namely, the expectation of using the L3 in a formal language classroom and the language experiences and backgrounds of peers. In the next section, I discuss the findings of the specific mediating functions of the learners’ L1, L2, and L3 in light of previous empirical findings.

14 Pocho is an Americanized Mexican
6.2.2 Specific mediating functions

To date, only a select number of studies have examined the specific mediating functions of the L1, and to the best of my knowledge, this was the first study to examine the relationship between task type and the specific mediating functions of the L1 and the L2 on L3 development. The findings suggest that task types, individual task components, as well as learner agency impact the specific mediating functions of the L1; however, there was no evidence that task type impacted the mediating functions of the L2.

In the present study, language mediation during decision-making tasks was investigated. Previous studies have not included decision-making tasks for the purpose of investigating the mediating functions of language; however, there have been studies that examined the specific functions of language during writing tasks alone. Given the current design of the decision-making task (i.e., inclusion of an oral and a written component), the present discussion first examines the findings from the written component. Similar to Antón and DiCamilla (1998), the results of this study show that learners relied on the L3 to generate ideas. Conversely, Storch and Aldosari (2010) found strong evidence of generating ideas via the L1 during a composition task and, interestingly, their findings show that generating ideas via the L1 was more salient for more proficient dyads. One possible explanation for the differences in the findings between the present study and Storch and Aldosari (2010) is task design. Storch and Aldosari (2010) implemented a stand-alone writing task. In the present study, the writing component was preceded by an oral component. During the oral component, learners were ‘on-line’ and were having to think in the moment in order to exchange ideas in the L3. This may have alleviated the cognitive burden of writing a story directly in the L3 since they had already activated the language necessary to complete the task. This finding, however, does not explain why learners generated ideas in the
L3 during the oral component. A possible explanation lies in the nature of the oral and the written tasks. In the former, speaking is the primary task, which would more naturally be mediated via the L3; however, in the written tasks, the main task is to write in the L3, an activity that can be supported via both the L1 and the L3. Another important difference between speaking and writing is that speaking is unplanned and less formal. By virtue of these characteristics, learners may have been more oriented towards meaning which is more likely to engender target language mediation. In sum, task design and the demands associated with each component provide a possible explanation for the present findings that L3 mediation was identified during both the oral and written components of the task.

In addition to the primary mediating functions, the present study closely examined the secondary functions that emerged during the oral and the written components. As mentioned above, previous studies have not discriminated between the oral and the written components. However, the findings from this study indicate that during the oral component, the secondary functions differed across the participants: only David and Felip evaluated the information that was provided to them during the oral component. One possible explanation to account for these patterns is that the learners approached the task differently. Although they were instructed to evaluate the content of the information throughout the task, in Example 47, Marta explains that she only began to evaluate the information prior to the start of the second component, namely, before the writing component.

Example 47: Learner agency during decision-making task

19 Caroline ¿Cuando empezaron a evaluar o a tomar en cuenta las diferencias entre los departamentos?
   [When did you start evaluating or taking into account the differences between the apartments?]

20 Marta: A la hora de escribir antes de escribir justo antes de escribir.
   [When we started to write before writing right before writing.]
During the written components, other differences were identified across the focal participants. For instance, Marta and Paco relied on L1 mediation for task management and vocabulary deliberations whereas David and Felip, in discussing these functions, relied on L3 mediation. Patterns of L1 mediation for task management functions have also been identified in previous studies (Alegría de la Colina & García Mayo, 2009; Storch & Aldosari, 2010). The observation that David and Felip seldom relied on L1 mediation for task management functions may also be an indication of proficiency effects: less proficient learners may turn to the L1 to make the task demands more manageable. This can thus enable them to generate ideas immediately in the L3. As for vocabulary deliberations, lexical activation of conceptual and semantic information via the L1 is a well-documented psycholinguistic process. Potter, So, Von Eckardt, & Feldman (1984) argue that the conceptual information of L2 words is mediated via the L1. Kroll and Stewart (1994) later suggested a developmental sequence such that learners can activate the semantic information directly in the target language but that during earlier stages of lexical development, learners rely on L1 knowledge. As a result, it is possible that learners turn to their L1 to access the necessary information, especially during early stages of lexical development.

Previous studies with story completion tasks did not discriminate between task modality. As such, to situate the current results within the larger body of empirical work, I first draw on the findings from the oral and written components combined. Three dominant functions were identified: generating ideas, vocabulary deliberations, and task management. However, similar to the decision-making task, only the latter two functions were mediated via the L1 during Marta’s and Paco’s task performance. This finding provides additional empirical support to
Storch and Aldosari (2010) and Swain and Lapkin (2000), who found that learners rely on their L1 for managerial aspects of tasks.

In the discussion reporting on the decision-making task, learner agency and proficiency was hypothesized to impact L1 mediation for vocabulary deliberations and task management. As speculated by Swain and Lapkin (2000), learners’ idiosyncratic approaches and attitudes towards the tasks may provide a stronger explanation. Especially during the story completion task, there was ample evidence that learners approached the tasks differently. For instance, the analysis of Paco’s data suggests that he took control of the task and included his peer in the interactions primarily to solicit help via the L1. In Example 48, Paco consults his peer in turns 21 and 23 for vocabulary deliberations. In Line 24, he responds to Janet who questioned the sentence that Paco wrote. In Line 27, he solicits help for vocabulary, and acknowledges her response in Line 28. In Line 29, Paco accepts the error correction proposed by Janet and then informs her that he will use the source text. Finally, in Line 34, he solicits her help for vocabulary deliberation.

**Example 48: Learner agency during task performance**

<table>
<thead>
<tr>
<th>Turn</th>
<th>Paco</th>
<th>Janet</th>
<th>Paco</th>
<th>Janet</th>
<th>Paco</th>
</tr>
</thead>
</table>
| 21   | Aha… Parce que c’est plus nutritif. Grosse era con dos –s, ¿verdad?  
Yes… Because it’s more nutritious. Fat was with two –s, right?  |
| 22   | ¿Qué?  
What? |  |
| 23   | Grosse de gordo era con dos –s  
Fat like fat was with two –s  |
| 24   | Uh grosse. Elle se trouve?  
Fat. She finds herself?  |
| 25   | Elle s’a trouvé se encontró  
[She found herself she found herself]  |
| 26   | En pasado, en pasado, ponle el apostrofe, no, sí, nada más es  
[In the past, in the past. Put an apostrophe, no, yes, it’s only]  |
| 27   | Este, como es el contrario de bonita? Jolie, horror  
Well, what is the opposite of pretty? Pretty, horror  |
| 28   | Fea? Fea… laide  
Ugly? Ugly….ugly  |
| 29   | Laide, ah  
[Ugly]  |
During these brief exchanges, as illustrated in Example 49, Paco wrote five complete sentences:

Example 49: Sample of written narrative during the story completion task

Parce-que c’est plus nutritif que la malboufe qui elle aime. Mais, quand elle tait seule elle mangait pizzas, beaucoup des chips et d’autre malboeuf. Quand elle tait plus grand (et gross), elle s’a trouvé laide. – Je ne me trouvé pas jolie. – l’a dit a son amie. Et si tu allais voir quelqu’un? Marie sait que Marie magait beaucoup de la malbouffe, et qui mienant elle était un peu gross. [Because it is more than the junk food that she likes. But, when she was alone, she ate pizza, a lot of chips, and other junk food. When she was bigger (and fatter), she found herself ugly. I don’t find myself to be pretty – she told her friend. And what if you were to go see someone? Marie knows that Marie ate a lot of junk food and that now she was a bit fat.] (Sample from text reconstruction text)

During the interview, Paco explained that the story completion task proved to be quite difficult and under these circumstances, he preferred to work alone, as illustrated in Example 50.

Example 50: Attitudes towards pair work

Parece ser, que cuando se trata de un trabajo en el que tengo que pensarle y concentrarme y echarle ganas…prefiero hacerlo sólo porque pienso que…o sea, no puedo trabajar en equipo así. O sea, no ubico cómo podría concentrarme en el trabajo y al mismo tiempo…trabajar en equipo con otra persona. Preferiria hacerlo yo solo….Si estamos más o menos en el mismo nivel y es un trabajo dificil…bueno, no dificil, sino que tenia muchos requisitos…prefiero, más bien, sólo puedo hacerlo bien….o como ignorando a mi compañero. [It looks like when it’s a difficult task where I need to think and focus, I prefer to do it alone because I think to myself… I can’t work in a group like this. I mean I
don’t know how I can concentrate on the task and at the same time... work with another person. I would prefer to do it alone. If we are more or less at the same level and it’s a difficult task... well, not difficult but which has many components, I rather, well, I can do a good job on my own...like ignoring my partner.]

Because Paco was working alone when generating ideas, I found higher percentages of task management during their interaction, which was mediated via the L1. An important implication for classroom practices is that each learner brings to the interaction her/his own preferences and working styles. From a theoretical stance, the findings provide evidence that tasks are behavioral blueprints (Coughlan & Duff, 1994) and that the activities which unfold during each task reflect individual behaviors. As such, when we interpret the findings, a consideration of both task performance data and interview data is not only useful but also critical.

The findings of the text reconstruction are in line with previous studies (Alegría de la Colina & García Mayo, 2009; Storch & Aldosari, 2010; Storch & Wigglesworth, 2003). Although grammar deliberations were dominant during the reconstruction task, patterns of L1 mediation for grammar deliberations were more salient for Marta and Paco. The findings are in line with proficiency differences and learners’ beliefs about how much L1 and L3 should be permitted in the classroom context. For instance, the next two examples show qualitative differences between Marta and Paco, who framed the constructions primarily in their L1 and David and Felip who used the L3. In Example 51, Paco and Andrea are mediating their discussion about form via the L1:

Example 51: Learners open to L1 mediation

35  Paco:  Aussi fascinante no... Donde está el problema creo que esta aquí que celui de Chihuahua
[As fascinating no... Where the problem is I think is here than the one in Chihuahua]
Andrea: Isabelle l’a trouvée aussi fascinante… por eso, si dice que, es porque hay una comparación
[Isabelle found it as fascinating… exactly, if it says that, it is because there is a comparison]

Paco: Uhu… está comparando entre esta catedral
[Uhu… she is comparing with that cathedral]

Andrea: Y la de Chihuahua
[and the one in Chihuahua]

In Example 52, Felip relies on the L3 to discuss the target structure (Lines 40 and 42) even though his peer alternates between the L1 and the L3:

Example 52: Learners oriented towards L3 mediation

Alejandra: Ah, des vendeurs sympathiques. Ce n’est pas une mauvaise idée, ¿no? O no si está bien, ce n’est pas… aquí venia, ¿no?
[Ah, friendly sellers. It’s not a bad idea, right? Or is it correct, it’s not… it was written here, right?]

Fernando: Une mauvaise
[A bad]

Alejandra: Sí, mira, ce n’est pas une mauvaise idée. Comencaremos.. c’est
[Yes, look, it’s not a bad idea. We will start… it’s]

Fernando: Présent à présent
[Present to present]

The patterns that emerged during the text reconstruction task reflect an interaction between task type and proficiency effects. Moreover, there is strong evidence from the analysis of the data that social factors impact the specific mediating functions. The learner’s individual working styles and attitudes towards collaboration impact the quality and the quantity of language mediation during learner-learner interaction.

During the dictogloss task, the primary function during the reconstruction component was the generation of ideas, which was mediated via the L3, and during the second component, the comparison of two versions of the text, which was also mediated via the L3. L1 mediation was the least pervasive during the dictogloss task but there is evidence that the learners relied on the
L1 for task management functions, a finding that is in line with previous research (Alegría de la Colina & García Mayo, 2009; Swain & Lapkin, 2000).

Throughout the discussion, I have suggested that several factors impact the specific mediating functions and language patterns, such as learner agency and proficiency. However, the finding that learners relied primarily on their L3 during the dictogloss task suggests that in addition to learner variables, task features may impact L1 mediation and the specific functions of language. The decision-making task and text reconstruction task included written input and required oral or written production/output. The dictogloss task, on the other hand, included aural input. During the dictogloss task, the learners were positioned as active listeners: they needed to comprehend and reconstruct a passage individually. Following the individual component, learners contributed to the reconstruction of the passage by comparing and sharing their notes. The finding that the L1 was less frequent during the dictogloss task (compared to the other tasks) suggests that the amount of French input (aural) combined with their written notes may provide a scaffold necessary for learners to mediate the completion of the task directly into the L3.

While there is evidence of L1 and L3 mediation, an important finding from this study is that learners seldom turned to their L2 to mediate the completion of the tasks. In the literature review, I presented two studies that investigated cross-linguistic influence (CLI) at the lexical level. Specifically, Hammarberg (2001) and Bono (2011) analyzed the functions of the L2 during lexical switches (L2↔L3). The findings from the present study that the focal participants only minimally relied on L2 mediation during task performance for vocabulary deliberation provides weak support for their findings. A possible explanation, discussed in section 6.2.1, could be attributed to the language mode (Grosjean, 2007, 2008). It was suggested that the formal classroom setting may have subconsciously deactivated the participants’ L2. Whereas Bono
(2011) and Hammarberg (2001) conducted their studies in informal naturalistic settings. Dewaele (2001) compared spontaneous speech production in formal and informal settings with multilingual learners. He found that in the formal settings, participants were in monolingual mode and that the same learners, in informal settings, were in bilingual mode. Overall, the findings suggest that the context where the language is being used is an important determiner (Grosjean, 2007). A second reason could be related to proficiency. Hammarberg (2001) found more evidence of L2 lexical inserts during the first eight months of her study. By Year 2, evidence of L2 lexical inserts had decreased significantly. To test the proficiency hypothesis, it would be interesting to compare the language production of learners at different stages of L3 development in the same classroom-based context and compare this to spontaneous language production in naturalistic contexts and laboratory-based contexts.

In review, the current results provide evidence that in the FL classroom, several factors impact the quantity of L1 and L2 mediation during the completion of collaborative tasks. The findings suggest that learner beliefs, learner agency, learner proficiency, and task type play a role in language mediation. The finding that L3 mediation was predominant is encouraging for FL teachers who are concerned with L1 mediation during learner-learner interaction. Overall, the findings suggest that intermediate learners in this context rely mainly on the L3. The findings further suggest that learners’ L1s serve important social and cognitive functions that contribute to the development of higher mental functions. In addition to exploring the mediating functions, the analysis examined the process of co-construction of knowledge through LREs. The next section examines the findings in light of previous studies.
6.3 Research question 2

*How does task type impact the occurrence and resolution of LREs in the L1, L2, and L3 by individual learners?*

The examination of LREs during learner-learner interaction has provided additional insights to our understanding of how learners engage with each other in the process of co-constructing linguistic knowledge. The results from the present study show that learner-initiated LREs are frequent. The findings also suggest that task type impacts the production of LREs. For instance, the decision-making and the story completion tasks engendered talk about lexis; the text reconstruction tasks led to form-based LREs; and the dictogloss tasks fostered talk about lexis and form. In addition, the findings suggest that L1 and L3 use during LREs varies: David and Felip relied primarily on their L3 to discuss and resolve LREs whereas Marta and Paco supported their discussions via the L1 and the L3. In what follows, I examine the results in relation to task effects in light of previous literatures.

The findings from the decision-making task show that learners produced more lexis-based LREs than form-based LREs. This provides additional support to Kim and McDonough (2011) who identified a task type effect on LREs. Given the limited number of studies that have implemented a decision-making task, the findings are suggestive that during a decision-making task, learners are more oriented towards lexis than to form.

A possible explanation lies in two specific features of the decision-making task: obligatory information exchange and provision of written input. In order to successfully complete the task, learners were instructed to exchange their diverging information and, in order to do this, they were prompted to use a set of predetermined vocabulary items. Although the content of the tasks was informed by the textbooks, some of the items were not known to the
learners. As a result, learners found themselves discussing unfamiliar vocabulary items. In future studies, the manipulation of the familiarity and the quantity of the lexical items should be considered. From a pedagogical perspective, including a mini-lesson targeting new vocabulary may provide a necessary scaffold, which may in turn engender talk about both meaning and form, if that is the desired pedagogical outcome.

A number of studies have investigated LREs produced during story completion tasks. In the present study, lexis-based LREs outnumbered form-based LREs. These findings are not in line with those obtained in French immersion settings. In a series of experiments in a French immersion context, Swain and Lapkin (1998, 2001, 2002) found that form-based LREs outnumbered lexis-based LREs. Swain and Lapkin (1998) also reported variation within a single class, a finding that they attributed to learner proficiency. For instance, they found that form-based LREs were only marginally more common than lexis-based LREs for the class but that for their more proficient focal participants, form-based LREs were twice as frequent as lexis-based LREs. They found similar results in a laboratory setting (Swain & Lapkin, 2002). In another study, (Swain & Lapkin, 2001) the findings were less clear: the quantitative analysis comparing LREs produced during a story completion and a dictogloss task did not reach significance. The current finding that lexis-based LREs outnumbered form-based LREs during the decision-making tasks and the story completion tasks is, however, in line with Kim and McDonough (2011). A possible explanation is the context. Unlike immersion classrooms, FL learners have a limited amount of target language exposure outside the classroom. In comparison, French immersion learners may be better equipped by virtue of being surrounded by the target language to engage in sustained conversations. This could explain why learners have more grammatical gaps than lexical gaps in their interlanguage. From a pedagogical perspective, the results indicate
that in FL classrooms explicit attention to lexical input may be a necessary condition for task completion. However, Swain (2000, 2005) argues that output provides learners the opportunities to notice gaps in their interlanguage and that the production of one type of LRE over another is perhaps of less concern. A more important aspect lies in the learners’ ability to resolve the gaps.

While the FL setting could help explain the current findings, another possible explanation may be that of topic familiarity. Swain and Lapkin (2001), who found more form-based LREs, had devised a mini-lesson prior to implementing the task. In the current study, I quickly identified that the learners lacked the necessary vocabulary to complete the task, as exemplified by my post-task journal reflection:

> Overall, this first session was very stressful for me. I feel like I didn’t prepare them well enough with vocabulary. I was afraid that by doing too many pre-tasks, I would be priming them too much – but really that was stupid in the sense that they didn’t have enough vocabulary knowledge, in their opinion, to go through the tasks. Because I want to be respectful of their needs as a teacher, I will for the next two activities plan more time with the content and the vocabulary to help them carry out the task (Monday, February 14th 2011)

Therefore at Time 2, I included a mini-lesson in the class leading up to the story completion task. As a result, the percentage of lexis-based LREs decreased. The gap between lexis-based LREs and form-based LREs, previously 54%, changed to 10%: lexis-based LREs only marginally outnumbered form-based LREs. This finding suggests that topic familiarity is an essential factor that impacts LREs. Furthermore, this small modification had a positive impact on learners’ attitudes towards the story completion task. For instance, interview data following the first story completion task indicated that learners struggled with the task and that this negatively impacted their attitude towards the task; however, at Time 2, the story completion was among their favorite tasks. In sum, in FL classrooms where learners have restricted exposure to the target language, the implementation of tasks that push lexical output may benefit the learners’
vocabulary building processes; however, providing learners with enough vocabulary a priori may lead to greater gains as a result of their positive attitudes towards the task and their ability to complete the task.

The analysis of LREs produced during writing tasks has also been the focus of empirical studies. In the present study, the decision-making tasks and the story completion tasks included both oral and written components. Findings pertaining to the written component were considered independently. The current study’s finding that lexis-based LREs were more frequent than their form-based counterparts is supported. For instance, Swain and Lapkin (1995) investigated the production of LREs by grade eight French immersion students who completed an individual writing task while thinking aloud in the presence of a researcher. During the drafting phase, which is comparable to the written components of tasks, their participants produced a larger percentage of lexical searches and spelling deliberations: 60% of the total LREs.

A possible explanation is the saliency of vocabulary in order to satisfy oral and written communicative needs. When completing a writing task, learners may be more aware that they do not know a lexical item needed to satisfy the demands of the task. Grammatical gaps may be less salient because even if the grammar is inaccurate, the learner may still be able to communicate their intended meaning. This hypothesis could then explain why a larger number of lexical gaps were identified.

Few studies have utilized the text reconstruction task in relation to LREs. The findings from the present study were clear; during the text reconstruction task, learners talked about form. One of the interesting findings was the pattern of LREs and language choice. In the present study, a large percentage of the form-based LREs were discussed in the L3 (68%). However, those LREs discussed in the L1 were primarily form-based. Storch and Wigglesworth (2003)
investigated the production of LREs but only reported the percentages of L1-based LREs. They found a similar distribution of lexis-based and form-based LREs produced in the L1. Unlike Storch and Wigglesworth’s (2003) participants, learners in the present study used the L3 to discuss the majority of form-based LREs.

A possible explanation for the diverging patterns could be attributed to the nature of the task. In the present study, each passage included 165 words and contained 40 gaps (24%) whereas the passage in Storch and Wigglesworth (2003) included 20 words and had 7 gaps (35%). A higher percentage of gaps could increase the complexity by making the meaning of the passage more obscure and forcing learners to attend to both form and meaning. In future studies, the manipulation of number of gaps and length of passages should be explored, as the number of gaps could impact how learners attend to lexis and/or form. Thus, the small number of studies examining LREs during text reconstruction tasks can only be considered suggestive at this point.

Unlike decision-making tasks and text reconstruction tasks, several studies have examined languaging opportunities during dictogloss tasks. In the present study, the distribution between lexis-based LREs and form-based LREs was similar, a pattern that supports the results of previous research (Kim & McDonough, 2008; Leeser, 2004; Swain & Lapkin, 2001). Kim and McDonough (2008) found similar support such that form-based LREs were slightly more frequent than lexis-based LREs. However, their findings also indicate that learners who collaborated with a more proficient peer produced slightly more lexis-based LREs. On the other hand, Kim and McDonough (2011) found opposing patterns. In their investigation of pre-task modeling, they found more evidence of lexis-based LREs than form-based LREs. Despite some minor discrepancies, overall the findings suggest that when learners are provided with large amounts of input in the target language, attention is diverted to lexis and form. As such, from a
pedagogical stance, the findings suggest that aural tasks may help learners identify gaps in lexis and form.

A number of studies reporting on LREs are beginning to emerge. However, an underexplored area remains: the role of language during LREs and its relationship to task type. Studies reporting on language patterns typically involve conducting post hoc analyses. One of the contributions of the present study was the careful analysis of language patterns of LREs. The overall finding is that during the dictogloss and the text reconstruction tasks, L1 mediation was less salient. The task that generated the highest percentage of LREs via the L1 was the decision-making task. Furthermore, the analysis showed that the L1 was used primarily for lexis-based LREs and was more pervasive in Marta and Paco’s task performance data.

As previously discussed, Storch and Wigglesworth (2003) found that only two of their six dyads relied on the L1 for resolving LREs, and they found evidence of this only after instructing their participants to rely on L1 mediation if they felt that it would help them to complete the task. Learners who receive pre-task modeling have been shown to attempt more LREs in the L2 (Kim & McDonough, 2011). In light of the present study, we have further evidence that learners are frequently able to sustain talk about the language directly into the target language. However, learner proficiency and the type of gap (e.g., lexis and form) interact with language patterns: both Marta and Paco turned to the shared L1 for lexis-based LREs. Nonetheless, there is evidence that Felip and David sometimes also relied on the L1 for lexis-based LREs.

The relevance of LREs from an SCT perspective is seen in the fact that by participating in LREs, learners can generate hypotheses about the language and apply their knowledge along with their peers (Swain, 2000; Swain & Lapkin, 1998). In this study, a noteworthy finding was that the patterns of correct resolution (learner-learner and teacher-learner) were quite similar for
the four tasks. In other words, resolution of LREs was not impacted by task type. Instead, the finding that David and Felip resolved LREs with greater accuracy suggests that learner proficiency mediates the resolution process. Lesser (2004) found that during a dictogloss task, learners correctly resolved more than 75% of the LREs but that more proficient dyads were more successful than the less proficient dyads. Kim and McDonough (2008) also identified a proficiency effect such that in collaborations with a more advanced peer, learners correctly resolved more LREs compared to collaborations with an intermediate peer. These patterns support the present findings: Marta and Paco were less successful in resolving LREs than David and Felip. Specifically, Marta and Paco correctly resolved only approximately half of the LREs with the help from their peers. Thus, proficiency appears to play an important role in learners’ ability to correctly resolve LREs with help from their peers. The finding supports Yule and Macdonald (1990) who maintain that collaborative work may not benefit all learners equally.

In the classroom context, learners interact with their peers and also with their teachers. Nonetheless, few studies have addressed the role of the teacher during LREs. To the best of my knowledge, Kim (in press) is the first to report on the role of the teacher during LREs. In line with the present study, the teacher engaged in learner-initiated LREs. Over the course of the present study, the teacher supported mediation in 14% of the LREs. This is comparable to Kim (in press). In her study, the group who repeated the same task type and the same content on three separate occasions requested help for 15% of the LREs. The group who worked with different content during the three occasions had a higher percentage of teacher-mediated LREs, (i.e., 26%). The significance of these results from a pedagogical perspective is that during learner-learner interaction, students are positioned in leadership roles and can sometimes provide the necessary scaffold to successfully complete the tasks. This is especially relevant in FL contexts,
where large classrooms are the norm rather than the exception. In these contexts, learners receive opportunities to negotiate their roles and learn from one another. Another important finding, contrary to popular belief, is that resolution between learners does not appear to be unidirectional. In other words, the analysis uncovered evidence that more and less proficient learners alike may be positioned in the role of the expert and provide their peers with the necessary scaffold, as illustrated in Example 53:

Example 53: Marta is positioned as the novice

43 Marta: Pero, ¿Tiene que ser todo en passif? Sí, ¿no?
[But, everything must be in passive? Yes, right?]
44 Thomas: Entonces sería un technicien
[So it would be a technician]
45 Marta: Technicien
[Technician]
46 Thomas: A été téléphoné
[Was called]
47 Marta: Par Anne? O más bien, ella a téléphoné un technicien. Elle a téléphoné un technicien.
[By Anne? Or better yet, she called a technician. She called a technician.]
48 Thomas: E… Non, parce que le technicien, le sujet c’est elle mais la voix passive je crois que le technicien c’est le sujet.
[E… No, because the technician, the subject is her but the active voice I think that the technician is the subject.]
49 Marta: A été.
[Was called]
50 Thomas: Entonces
[So]
51 Marta: E… un technicien a été téléphoné par elle.
[E… a technician was called by her.]

In Example 54, the expert role is Marta who is able to identify the need for the subjunctive mood, as illustrated in Lines 55 and 57.

Example 54: Marta is positioned as the expert

52 Thomas: N’aller pas sur ces sites
[Not go on those sites]
53 Marta: Qu’elle n’aille pas, non? Lui a dit qu’il serait mieux qu’elle que ella no
The finding that the learners may be able to provide the necessary scaffold to their peers and successfully negotiate a ZPD is in line with previous literature (Donato, 1994, 2000; Guk & Kellogg, 2007; Ohta, 2000, 2001). Donato (1994) found during a collaborative writing task that learners worked together to manage problems or gaps and Donate was also the first to suggest that, unlike student-teacher interactions, the distinction between expert/novice is blurred. The creation of the ZPD benefited not only the individual who solicited help but also those involved in responding to the query. Ohta (1995, 2000) later examined how the context impact the roles assumed the learners. Ohta found that learners’ role shifted between whole class interactions and learner-learner interactions: her focal participants’ role shifted from novice, during teacher-led activity, to expert during pair work. In this context, there was evidence that the roles shifted even within the microgenetic domain. Together, the participants created a collaborative ZPD which benefited both learners. In sum, the fluid nature of the expert and novice role in relationship to proficiency is an area that warrants further inquiry.

6.4 Research question 3

*How do LREs lead to L3 development?*

In the field of SLA, pretest-posttest design is a common measure of language development. However, to examine the impact of LREs during interaction on language
development, pre-fabricated posttests may not target items that originated in the interaction. Results on posttests could potentially provide a skewed representation of the benefits of producing LREs because these posttests could include items that were already known to the participants or ignore areas that were explicitly discussed by the participants (LaPierre, 1994; Swain, 1998). In the current study, in addition to implementing oral production tasks, individualized tailor-made posttest items were created uniquely for items that were not yet internalized by the learners. Evidence that items were not known to the participants came from the fact that they either initiated the LREs or they discussed potential solutions with their peers.

The mean score of correctly recalled items on the posttest by the four focal participants was high (79%), a finding that supports previous studies (LaPierre, 1994; McDonough & Sunitham, 2009; Swain & Lapkin, 1998, 2002; J. Williams, 2001). Swain and Lapkin (2002) also identified individual differences in posttest scores. In this study, the learners recalled more form-based LREs, except for Paco who recalled a higher percentage of lexis-based LREs. In what follows, I discuss four possible explanations for the differences: proficiency, pair dynamics, metalinguistic awareness, and L1 mediation.

The first explanation is learner proficiency. In the present study, learner proficiency ranged from more to less proficient as follows: David, Felip, Marta, and Paco. The finding that the more proficient learners tended to have a higher recall score is only partially in line with (J. Williams, 2001). She compared four proficiency levels and reported that the more proficient dyads had higher posttest scores on tailor-made posttests than the less proficient dyads. The fact that Marta had a high recall rate suggests that other factors may impact recall abilities.

A second possible explanation for the variance in posttest scores is pair dynamics. Watanabe and Swain (2007) suggest that posttest scores are likely to be attributed to learners’
levels of engagement and pair dynamics (Storch, 2001, 2002a). They suggest that collaborative
dyads (i.e., learners engage with one another) may experience larger language gains than
dominant/passive (i.e., one learner dominates) or expert/passive (i.e., one learner dominates but
tries to include their peer) groupings. In the present study there was evidence that Paco was not
always collaborative during task performance. This could explain why he had the lowest recall
rate.

Another possible explanation for the differences on the posttest scores is the learners’
metalinguistic awareness, which is reflected in the quantity of meta-language used during the
resolution of LREs. Marta was less proficient in French than David and Felip; however, she
frequently used metalinguistic knowledge to explain and understand the target structures.
Example 55 provides an example of how Marta and her peer resolved a form-based LRE during
the text reconstruction task using metalinguistic knowledge.

Example 55: Use of metalinguistic knowledge to resolve LRE

58 Marta: Nous avons* dirigé↑
[We have* gone↑]
59 Andrea: No pero si es se diriger… nous nous sommes dirigées
[No but if it’s to go… we have gone]
60 Marta: ¿Por qué?
[Why?]
61 Andrea: Porque es se dirigen
[Because it’s to go]
62 Marta: Nosotros nos dirigimos
[We have gone]
63 Andrea: Nos dirigimos. Nosotros nous nous sommes dirigées
[Have gone. We have gone]
64 Marta: Nous sommes dirigées, ok.
[We have gone, ok]
65 Andrea: Nous sommes dirigées
[We have gone]
66 Marta: Y ¿Por qué nous sommes…?
[And why we have…?]
67 Andrea: Porque cuando es se
[Because when it’s se]
Marta: Ah todo va con être, cuando es pronominal ah bueno como se diga
[Ah, everything thing goes with to be when it’s reflexive, or however you say it]

Andrea: Aha
[Yes]

Marta: Ok ya.
[Ok, got it]

In sum, learner proficiency, pair dynamics, and metalinguistic knowledge appears to affect the learners’ ability to recall information on the posttest. This explanation, however, does not appear to provide a satisfactory explanation for Felip’s lower results on the posttests. Felip was proficient, used metalinguistic knowledge, and was highly collaborative during task performance. A fourth explanation could be attributed to the role of L1 and L3 mediation.

During task performance, Marta relied on her L1 to discuss LREs whereas Felip relied almost exclusively on the L3. Previous research that examined LREs has not addressed the influence of language patterns on resolution and recall. However, in light of the previous discussion which highlighted the benefits of L1 mediation in completing cognitively complex tasks (Centeno-Cortés & Jiménez Jiménez, 2004; Storch & Aldosari, 2010; Storch & Wigglesworth, 2003; Swain & Lapkin, 2000), the present finding suggests that, in some cases, discussing LREs in the L1 may contribute positively to recall. Other factors that could influence learners’ ability to recall items include the relative difficulty of the items and the number of turns to resolve the LREs. These hypotheses warrant further probing.

The current analysis also compared learners’ resolution patterns for items that originated in lexis-based LREs and in form-based LREs in order to examine whether the type of LREs has an impact on recall. Unlike McDonough and Sunitham (2009) who found that learners did better on posttest items that originated in lexis-based LREs, three of the four focal participants did
better on form-based LREs. The opposite pattern was observed for Paco. Two possible explanations for the results are learner agency and vocabulary acquisition.

The first explanation is related to individual goals and idiosyncratic approaches to the task. During the interviews, Paco expressed a preference for the dictogloss tasks because it drew on listening skills, one of his stronger areas. When asked to discuss what he focused on during the dictogloss, Paco mentioned that he focused on recreating the text and explained that “después, ella me corrigió algunas veces” [and then she corrected me sometimes] (2-12). Further evidence that he was less oriented towards form was identified when he discussed his approach to the text reconstruction task. As illustrated in Example 56, Paco did not feel it necessary to talk about every point but instead focused on areas where he felt more sure:

Example 56: Comparison between text reconstruction and dictogloss

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>71</td>
<td>Caroline: Ok. Esa [gramática] se te hizo un poquito más fácil, ¿Por qué? [Ok, the text reconstruction task was a bit easier, why?]</td>
</tr>
<tr>
<td>72</td>
<td>Paco: Bueno, es que…yo te había dicho que es fácil porque básicamente podemos hacer lo que queramos y supongo que como estamos en nuestra zona de seguridad…así cuando dices “ah, estoy seguro de que este error se corrigió así” y lo anotas. [Well... I had told you that it’s easier basically because we can do whatever we want and because we are like in our comfort zone... so when we say “ah, I am sure that this error should be corrected like this”, you write it down.]</td>
</tr>
<tr>
<td>73</td>
<td>Caroline: Y el dictado… [And the dictogloss...]</td>
</tr>
<tr>
<td>74</td>
<td>Paco: El dictado es padrísimo porque se entiende, bueno, yo lo entiendo bien. Y luego nada más es escribirlo y ya. Aunque creo que después nos dijiste “chequen la gramática”, ¿no? [The dictogloss is the coolest because I understand, well, I understand it well. And then we only have to write it. Although I think that you told us to check the grammar after, right?]</td>
</tr>
<tr>
<td>75</td>
<td>Caroline: Claro! Pues sí! [Of course! Yes!] (4-12)</td>
</tr>
</tbody>
</table>
Similarly, Marta explained that although the text reconstruction task may have been the most difficult, it was also one of her favorites. As illustrated by Example 57, Marta explained that this type of task allowed her to focus on spelling and also on grammar:

Example 57: Marta describing the grammar focus of the text reconstruction task

76 Caroline: Ok. ¿Qué tan útil es este tipo de actividad para ti? [Ok. How useful are these types of activities [text reconstruction] tasks for you?]

77 Marta: Ah, muchísimo, porque me fijo en la ortografía que es lo que también estoy muy mal y también en la gramática de todo. Sirve mucho porque lo lees y lo escribes y lo vuelves a escribir lo vuelves a leer y lo vuelves a escribir. [Ah, very useful because I notice the spelling which is difficult for me and the entire grammar. It’s really helpful because you read it and you write it, you write it again, and you read it again, and you write it again.]

The findings would support Coughlan and Duff (1994) who maintain that tasks are blueprints of what actually unfolds during interaction and each learner brings to the interaction their own experiences and expectations.

A second possible explanation for the lower recall on lexis-based LREs by some of the focal participants is due to the nature of vocabulary acquisition processes. In the vocabulary acquisition literature, the number of times that a learner needs to encounter a word in print in order to learn an item is hypothesized to range between six to more than 10 times (see e.g., Waring & Nation, 2004 for a discussion). The findings from the present study suggest that discussing vocabulary during learner-learner interaction may have been insufficient for recall. In other words, while correctly resolving lexis-based LREs may contribute to some cognitive transformation, the findings suggest that greater exposure to and practice with the target items is a necessary condition. As Kim (in press) identified, when learners repeated the same task
procedure and same content, the quantity of lexis-based LREs decreased, lending support that learners need to encounter words on multiple occasions.

In the present study, the results indicated that learners had a high percentage of accurate recall for posttests that were created based on correctly resolved LREs. In addition, there is evidence that learners correctly recalled items that were incorrectly resolved during the interactions. David and Marta recalled approximately 70% of the items that were incorrectly resolved during the interaction whereas Felip and Paco recalled approximately 55%. The relationship between incorrect responses and posttest scores has seldom been reported. I found one source that only marginally addressed this. Williams (2001) reported that she found three instances of incorrect resolutions during learner-learner interactions and that one of the items was correctly recalled in the posttest and the other items yielded wrong, albeit different answers. However, given the limited amount of recall on incorrect resolutions, she did not address this in her discussion. From an SCT perspective, the locus of interest is the process of knowledge formation and errors in the output are indications of what the learners are in the process of learning. Thus, building on Swain’s output hypothesis (Swain, 1995, 2000, 2005), by engaging in LREs, learners are afforded opportunities to notice gaps in their interlanguage and to generate hypotheses about the correct forms. Consequently, learners’ awareness is heightened, and although they may not be able to correctly resolve the LREs in the moment, noticing may be a precursor to development (Schmidt & Frota, 1986).

Finally, evidence of L3 development was also obtained from the oral component of the individual posttest. However, the incorporation of lexical items and syntactic structures into the spontaneous posttest was limited: David and Felip incorporated six lexical items, Marta incorporated three, and there was no evidence of incorporated items into Paco’s spontaneous
speech production data. These findings are in line with Williams (2001). In her study, subsequent use in spontaneous data was also very low: 17/178 (9.5%). However, as discussed by Williams, while it is difficult to capture evidence of delayed incorporation into spontaneous speech, evidence that the more proficient learners used more items is encouraging. The inclusion of language in authentic situations along with less authentic contexts (multiple choice items) is thus critical and worthwhile.

Overall, the findings are consistent with previous research which suggests that producing LREs is a source of language development (Swain & Lapkin, 1995, 1998) and that languaging is one mechanism of internalization (Swain, et al., 2011). The findings lend further support that learners can work collaboratively and provide one another with the necessary scaffold to develop their language skills. The findings from this exploratory study suggest future areas of study such as the relationship between the resolution of LREs and language development.

6.5 Research question 4

*What are learners’ beliefs about using their languages during collaborative tasks?*

One of the empirical questions that guided the present research was whether learners of an L3 in a FL classroom would rely on their L1 and/or their L2 as a tool to support the completion of pedagogical tasks. The findings indicate that the focal participants at Universidad Multilingual relied primarily on L3 mediation, in some cases, on L1 mediation. The hypothesis that multilingual learners would draw on a nonnative language during classroom-based tasks was not supported. To reach a deeper understanding, learner beliefs and attitudes towards L1 and L2 mediation were elicited during a series of interviews. These findings suggest that the focal participants beliefs’ mirror the pervasive belief that L1 mediation should be limited in the FL classroom. Nonetheless, the learners believe that the L1 can support the interaction for
vocabulary, grammar, task management, generating ideas, and that it serves social functions. This supports previous research findings (e.g., Mora Pablo, et al., 2011; Rolin-Ianziti & Varshney, 2008; Storch & Wigglesworth, 2003). Although nonnative language mediation in the FL classroom has not been previously examined, in the present study, findings suggest that learners do not believe that other nonnative languages have a place in FL instruction. Despite this, Marta and Paco discussed that L2 mediation can help with lexis and grammar. In what follows, I discuss the sources of learner beliefs, which may have had an impact on their beliefs and performance.

From the interviews, there is evidence that learners’ previous language learning experiences impact their beliefs and attitudes and could thus offer a possible explanation for the observed patterns of L1 mediation in this context. For instance, Felip studied English in the U.S. during an entire academic year while completing high school. There, his teachers did not permit L1 mediation, a policy which was strictly enforced such that students caught using their native language lost certain privileges: “Y si te oían hablar en español, aunque te hayan hablado a tí primero en español, tú fuiste el que habló en español y mala suerte te escucharon…y entonces te quitaban tu ‘outing’ y te quedabas el fin de semana” [And if they heard you speak in Spanish, although they spoke to you in Spanish first, you were the one who had spoken in Spanish and tough luck for you... and so they would take away your outing and you would stay during the week-end] (1-19). This experience may be a source of influence on Felip’s beliefs about a target language-only mentality in the classroom. Although there are some evident reasons for wanting to limit L1 mediation in FL settings, reinforcing a strict target language-use only policy can have negative impacts on learners’ willingness to learn the language.
In the case of Marta, English and Spanish have always been present as a result of her place of residence (tourist region where English is spoken), father’s profession (Spanish-English translator), and school. In her experiences, languages have always been in close contact. As such, it is possible that Marta’s experiences have impacted her beliefs about L1 mediation in the classroom. In other words, unlike Felip who experienced a target language-only policy, Marta was immersed in different contexts where judicious L1 mediation is not only supported but valued. Therefore, previous experiences have clearly impacted her beliefs.

Finally, the interview data suggest that David’s beliefs have been influenced by his current and previous experiences. David has studied a number of FLs, and the sources of input have come predominantly from the classroom, and teachers used and expected the learners to rely on target language mediation. In addition, David, who was pursuing a language major at the time of the study, learned about teaching methodologies and his beliefs aligned with the proponents of the Direct Method which supports the role target language input and output. In light of these findings, there is strong evidence that learner experiences impacted their in-class behaviors. During the interviews, there appeared to be some tension in David’s views, partly in response to my beliefs. As mentioned previously, David completed the second component of the fourth interview after having attended an informal presentation about my research. His interview data suggests that he was either in the process of revisiting his own beliefs or was perhaps suggesting ideas that would align with my beliefs. Although it is difficult to determine his position, the results are suggestive that learners’ previous experiences impact their beliefs about language mediation.

In sum, due to the paucity of research investigating learner beliefs about language mediation and the source of these beliefs, the findings that learners believe that L1 mediation
should be limited contribute to our current understanding of language mediation from the learners’ perspectives. Future research should continue to examine more closely the relationship between task performance and learners’ beliefs about language mediation.

6.6 Implications and future directions

The idea for the present study was guided by the identification of perceived gaps in the literature reporting on language mediation in FL classrooms from an SCT perspective. The results presented in Chapters 4 and 5 contribute to our understanding of language mediation, languaging, and learner beliefs in relation to the study of an L3 FL classroom setting. Next, I discuss theoretical and pedagogical implications drawn from the present study.

6.6.1 Theoretical implications

Proponents of SCT of mind maintain that language is an important tool that supports language development (Brooks & Donato, 1994; Lantolf, 2000b; Swain & Lapkin, 1995, 1998). In the present study, while L1 mediation was limited, there is also evidence that the L1 serves a number of specific functions (Storch & Aldosari, 2010; Storch & Wigglesworth, 2003; Swain & Lapkin, 2000; Thoms, et al., 2005). Using the turn as the unit of analysis, results indicate that L1 mediation was restricted primarily to task management, vocabulary deliberations, and grammar deliberations. This suggests that L1 mediation allowed learners to remove themselves from the task in order to talk about the task. Through the L1, they regulated their own mental activities. After having gained control over their mental activities and the task, they continued in the target language. The results further suggest that the focal participants also sometimes turned to their shared L1 to mediate and assist each other in the creation of a shared ZPD (Wertsch, 1985). Through L1 mediation, learners were able to seek out and provide assistance in the areas of lexis and form. This then led to higher levels of achievement in the target language. Specifically, when
learners identified a linguistic gap, they collaborated to hypothesize about the language and to
discuss alternative lexis and constructions. The number of correctly resolved LREs that emerged
out of learner-learner interaction is evidence of working collaboratively within the ZPDs. With
the findings from the current study, there is further evidence that learners – regardless of
proficiency – contribute to the meaning-making process. In other words, when given the
opportunity, learners may position themselves as expert and/or novice. In sum, the findings
suggest that when participating in a complex task, learners externalize their thoughts via the L1
and engage in meaningful social interactions with their peers. This allows them to gain control
over their higher mental functions.

Research examining the role of L2 mediation in the development of an L3 is still in its
infancy and much research in this area is needed. To the best of my knowledge, this is the first
study to examine languaging as a mechanism for L3 development. In this study, L3 development
was measured using oral tasks and custom-made posttests. The findings from the oral component
of the posttests indicate that some of the learners incorporated lexical items that originated in
LREs into their spontaneous oral production. Although the number of integrated items was quite
low, it does indicate that events which unfold in the social realm are a precursor to
internalization. Through collaboration with their peers, they were able to engage in independent
language use in subsequent contexts. The data from the paper and pencil test provides stronger
evidence that LREs are important for L3 development. While evidence of L3 development was
identified with each focal participant, each learner benefited differently. Marta outperformed her
more proficient peer Felip in that she recalled a higher percentage of items on the paper and
pencil portion of the posttests. Given her heavier reliance on L1 mediation, I wish to speculate
that L1 mediation may have direct impact on the process of internalization. However, this claim needs further examining.

The finding that L2 mediation was minimal in this context also has important implications for theories of L3 development (e.g., the language mode) (Grosjean, 2008). Given the focal participants’ advanced L2 proficiency, the findings indicate that language (de)activation and language mediation are intricately connected to the context. In this formal classroom-based setting, the learner’s L2 was not highly activated. As such, the learners appeared to be operating primarily in bilingual mode: the L3 was the base language and the L1 was, to a lesser extent, activated. These findings contribute positive evidence that activation is contingent upon the context of use and their peers’ language patterns. In addition, given that the learners seldom turned to the L2, the more distant languages, the findings support the Psychotypological hypothesis. To gain additional insight regarding the role of the L2, future research should be expanded to draw on introspective research methodologies as this could potentially reveal other functions of the L2 and cognitive processes at play during L3 development (Jessner, 2006).

Another direction is to examine the typological distance between the native and nonnative languages. By manipulating this variable in a similar context, it would become possible to observe if and when learners activate different languages.

The study of L3 learners presents unique questions that SLA researchers have not needed to consider, namely, how much metalinguistic knowledge do learners of L3s have in comparison to learners of L2? From this study, given the limited amount of L2 mediation during task performance or reference to L2 mediation, it is difficult to draw clear conclusions regarding the claim that L2 and L3 learners are different. Nonetheless, the findings point in the direction that learners of L3s may experience some advantages since they can, albeit not often, draw on
linguistic knowledge gleaned from L2 development. To support this notion, three of the focal participants frequently relied on metalinguistic language to discuss grammar during task performance. David and Marta, for example, often engaged in talk about the language. David did so primarily via the L3 and Marta via both the L1 and the L3. This suggests that previous formal language classroom experiences can foster greater awareness about language. However, in order to support this idea, a comparative study of learners of an L2 and learners of an L3 is needed. A second source of evidence was the range of functions that the learners discussed during their interviews. While they discussed the functions of the L1 more homogeneously, some of the participants reported making some explicit connections to the L2 for lexis and grammar. In light of the findings, the claim that L3 learners are different than L2 learners appears to be only weakly supported.

One of the aims of this study was to also contribute to current ideas of task-supported learning in the language classroom context. The construct of tasks in SLA appears to suggest that tasks elicit predictable behaviors. The present findings suggest that task types and individual task components impact language mediation, to a certain extent, in predictable ways. For instance, clear patterns emerged during the oral components of the decision-making tasks. Learners were primarily engaged in generating ideas via the L3. Similarly, during the reconstruction component of the text reconstruction task, the L1 and the L3 were used for grammar deliberations, while during the comparing component, the primary use of the L3 mediation was to compare the two texts. The cross-case analysis, however, uncovered variance between the focal participants. During the oral component of the story completion task, for example, Felip had a lower percentage of turns for generating ideas and there was less evidence of turn-taking. The analysis shows how Felip approached the task differently (i.e., Felip described all of his images before
turning the floor over to his peer). Paco also had a smaller number of turns (especially at Time 2); however, unlike Felip, Paco and his peer began sequencing the images without having described each image – this resulted in greater negotiation and discussion about the task.

Coughlan and Duff (1994) argue that a distinction should be made between tasks and activities. The findings appear to corroborate this claim and provide further evidence that while tasks and task components impact the specific functions of language, learners approach tasks in their own idiosyncratic ways. Therefore, both tasks and activities should be considered when analyzing learner-learner interaction data. In sum, while the careful design of tasks and their respective components can direct learners’ attention to meaning and/or to form, ultimately task difficulty, learner agency, learner beliefs, and learner proficiency are important variables that shape task performance.

6.6.2 Pedagogical implications

The present study also has a number of pedagogical implications. In FL contexts, sometimes teachers are reluctant to implement communicative tasks because they worry that learners may rely more extensively on their L1 during learner-learner interaction. In this context, learners used the shared L1 sparingly for task-related purposes. Importantly, the limited amount of L1 mediation was oriented towards the task for linguistic analyses: the L1 served task-related functions which supported their efforts in completing the tasks. Thus, in light of the present findings, FL classrooms should also include tasks, as they appear to foster large amounts of target language mediation. However, the finding that learners feel more inclined to increase L1 mediation with increasing familiarity with their peers suggests that language teachers should monitor patterns of language mediation over time and modify pairing strategies accordingly if and when learners become too comfortable with a peer.
Tasks should also be viewed as a vehicle for creating meaning-making opportunities. The output produced during learner-learner interaction shows how pedagogical tasks provide learners with much-needed opportunities to engage in authentic and sustained conversations in the target language. Furthermore, tasks reinforce and promote linguistic knowledge building. With the present findings, there was ample evidence that task-supported language teaching promoted L3 development. However, it is important to consider the novelty of tasks in FL context. Despite recent efforts to elaborate a task classification that describes the relationship between task complexity and language development (Ellis, 2003; Robinson, 2001a; Skehan & Foster, 2001), in FL settings such as Universidad Multilingual, some teachers and learners may be unfamiliar with tasks and task features. As such, learners may not be familiar with their roles during task completion and thus spend time trying to understand the task demands rather than engaging in meaningful interactions. It is therefore of great importance for researchers, teachers, and learners to work in close proximity in order to maximize the benefits of tasks. In the present study, learners completed similar tasks on three separate occasions (one pilot session and two implementations of each task type). Repeating tasks is of critical importance to reduce the amount of talk about the task (e.g., task management) and increase meaningful interactions that promotes language development.

The inclusion of several types of tasks also serves to inform pedagogical decisions. In light of the finding that task type and task components impact the quantity of L1 mediation and the focus of linguistic features (i.e., form and/or meaning), teachers should devise and implement tasks that draw learners’ attention to different aspects of the language. With the robust evidence that text reconstruction tasks draw learners’ attention to form and that story completion tasks draw learners’ attention to meaning, including an array of tasks can serve to develop holistic
competencies in the target language. In addition, diversifying the type of input and output can serve to highlight individual learner’s strengths (e.g. aural input and/or written input). In this study, for instance, Paco’s performance during the dictogloss tasks was qualitatively very different from his performance during the story completion tasks. Not only did he produce more target language, he was more collaborative and positive throughout the tasks. In other words, designing tasks that target several skills and structures keeps learners engaged and this may have a positive impact on their language learning experiences.

In task-supported classroom contexts, the role of the teacher should not be overlooked. In this classroom, the teacher was decentralized and learners were held accountable for their learning. Through the implementation of tasks, learners found themselves in a position where they assumed a large amount of responsibility for their own learning. However, with the finding that each learner approached the task differently, teachers continue to play important functions. Again drawing on Paco’s experiences, we saw that he was oriented towards meaning and only minimally focused on grammatical aspects. Therefore, in addition to careful task design, from a pedagogical standpoint, it is of equal importance that teachers work closely with their learners in order to provide them with the necessary tools that will support and maximize learning opportunities regarding both meaning and form.

Finally, literature reporting on tasks and task-supported language teaching highlights the importance of completing task cycles. Willis (1996) proposes a three-part cycle: pre-task, task, and post-task. Pre-tasks serve to activate phrases and vocabulary that support the second phase, namely, the task. Post-tasks include consciousness-raising activities to reinforce key concepts and vocabulary. In this study, each task included two components and these were followed by a posttest that was presented to the learners as a review task. The inclusion of two components was
beneficial to the learners. For instance, the oral component of the decision-making tasks and the story completion tasks appeared to facilitate the completion of the written task in the L3 (e.g., generating ideas) as did the aural input during the dictogloss task. Also, including a comparing/noticing component during the second components of the text reconstruction tasks and the dictogloss tasks increased the awareness of target linguistic structures. Indirect evidence comes from the high scores on the posttest and from the perspectives of the learners. In each pedagogical context, learners need opportunities to engage in holistic, meaning-oriented tasks wherein they can reflect on the language, make generalizations and synthesis on the learning process (Tarvin & Al-Arishi, 1991). In sum, the teachers’ role in task-supported language teaching is critical before, during, and after each task as it requires careful consideration of how to prepare learners for the tasks, support them during tasks, and draw on their discussions to inform future tasks.

6.7 Limitations and future research

One of the overarching goals of this study was to gain a richer and clearer understanding of the functions of multilingual learners’ languages during learner-learner interaction in an L3 as a FL classroom context. The language policy at Universidad Multilingual made this particular site ideal for researching native and nonnative language mediation. In reflecting upon the research design and implementation, a few limitations were identified.

The genetic law of cultural development proposes four interconnected domains of development; however, in this study, the analysis focused primarily on development within the microgenetic domain (Vygotsky, 1978). Changes in the microgenetic domain reflect short-term formation of psychological development (Wertsch, 1985). In the present study, the analysis examined how adult learners changed and integrated a new form of mediation, namely French, as
a result of participating in social activities with their peers. I was able to show through the
analysis of turns and LREs that learners use language as a symbolic tool. With this analysis, I
created a detached and fragmented representation of language development. Evidence of changes
in higher mental functions should not be limited to language gains in tailor-made posttests.
Future analysis should consider the relationship between each task and trace development as a
result of changes from one task to the next. Another approach would be to examine changes in
how learners negotiate their ZPDs and thus conduct a qualitative analysis of the language used
by the learners when talking about the language. Identifying progression through the different
stages of regulation could provide more information about cognitive transformation in the
ontogenetic domain and the microgenetic domain (see e.g., Frawley & Lantolf, 1985).

In what follows, I discuss some methodological limitations such as the context of study,
the implementation of tasks, classroom realities, tension between my roles, and finally, the
measure of L3 development used in this study.

The context of this study was limited to a single classroom, which only provides one piece
of a much larger puzzle. Moreover, in the study, language mediation was limited to in-class
tasks. The participants’ behaviors are representative of how they act or how they think they
should act during these particular instances. This context does not consider the participants’
experiences outside classroom walls. Consequently, I have provided a narrow view of language
mediation. Future research needs to consider how the same multilingual speakers mediate
language-related experiences in formal and other, more naturalistic contexts as they interact with
multilingual peers. Moreover, in this context, the learners were learning a typologically similar
language to their L1s. Expanding the scope to other contexts of instruction where learners are
either less proficient in the target language or are learning an L3 that is more similar to the L2
(e.g., German) may provide further insights about the roles of nonnative languages during
learner-learner interactions.

Second, in this dissertation, comparable tasks were created. However, after noting lexical
gaps during the story completion task, I included a mini vocabulary lesson. This pedagogical
decision may have benefited my learners but it is also believed to have impacted task
performance. Thus, the finding that lexis-based LREs were less frequent at Time 2 is indicative
of a combination of task type effects and implementation effects. Future research would need to
keep tasks constant – an objective that could be achieved with more pilot studies leading up to
the study.

Third, a reality we face when conducting classroom-based research is that we are working
with students. Attendance and punctuality is thus a concern. My original plan to devise a pairing
scheme a priori based on learner proficiency was abandoned because in this context, learners
often missed class and arrived late. This forced me to make decisions in situ. While I believe that
a more controlled pairing strategy could have facilitated a more systematic post-hoc analysis of
proficiency effects on language mediation, the classroom reality impeded this. Thus the
relationship between task type and learner proficiency is less clear than might have been revealed
in laboratory-based settings. Although I am not suggesting that classroom-based studies should
be avoided, it is important to anticipate changes and accommodations that may impact original
research goals and questions.

Another limitation with the present study is related to the tension between my dual roles.
Conducting a classroom-based study with my own learners has provided me with rich insights
into their behaviors during task performance. Also, it gave me the chance to interact with them
inside and outside the classroom. It would be naïve to think that my dual role did not have some
impacts on their beliefs and, consequently, the findings. By conducting the interviews myself, it is possible that the participants shared what they thought I wanted to hear. Therefore, while learner belief data provided some additional insights into language mediation, the reliability of the findings needs to be interpreted cautiously. In future classroom-based research, inviting a second researcher to interview the learners should be considered. A related aspect was the impact of the audio recorder on the learners’ behaviors. Although the focal participants indicated during the interviews that the recorder was not problematic, their behaviors, subconsciously, may have been impacted. Finally, with the large pool of participants, I was unable to collect retrospective data (i.e., stimulated recall). In future studies, limiting the original pool of participants would enable me to obtain multiple sources of data and thus create a more holistic account of their social and cognitive activities.

A final methodological limitation lies in the measures of L3 development. With the inclusion of tailor-made posttests, I was able to trace changes in the learners’ French language abilities in the microgenetic domain; however, due to time constraints, the reliability and validity of the test items was not measured. The number and types of items that were included in the posttests were not controlled for. Due to time constraints, the reliability of each test item was not controlled for. Therefore, the relative complexity of focal participants’ test items may have differed, and consequently may have impacted their performance. Also, some focal participants received more items and/or they were given an unbalanced number of items that were created from lexis-based and form-base LREs. In terms of validity, the tests may not have tested the same types of knowledge (comparing oral and written language produced during a collaborative task (production) with an individual oral recording and paper and pencil posttest (primarily
passive knowledge). In future studies, the posttest should include, in addition to individual production data, some data from collaborative tasks.

6.8 Final thoughts

The dissertation process has been a positive and enriching experience personally and, of equal importance, I believe that the contributions of the present study are manifold for both theory and pedagogy. The present study was conducted in an intact classroom over the course of a semester with learners of an L3. The focal participant behaviors are an accurate representation of what unfolded during this particular French language classroom. Because of this, the study’s findings may be relevant and applicable to other adult FL classrooms that foster a communicative approach.

Another important contribution to the research community is the finding that the learners frequently used the target language during learner-learner interaction to resolve linguistic gaps despite the fact that the learners in the present FL classroom were not obliged to abide by a target language use-only policy. In the study, David and Felip relied on the L3 extensively and although Marta and Paco used more L1 than their peers, they engaged in L3 talk during task completion. These findings suggest that developing communicative tasks with intermediate learners can encourage the use of L3s, even when learners share the same L1 and L2. As a result of working on collaborative tasks via the L1, learners increase the amount of L3 input and learn to use the language in meaningful interactions. This decreases the likelihood of constructing an artificial view of language and the learning mechanisms.

Another important contribution lies on our understanding of the impact of task and of task component on the specific mediating functions of learners’ L1 and L3. The results indicate that during the decision-making tasks, the primary function was generating ideas; during the
story completion tasks, the primary functions were generating ideas and task management; during the text reconstruction task, the primary functions included grammar deliberations and comparing; and finally, during the dictogloss task, the dominant functions included generating ideas and comparing. The detailed analysis, however, suggests that task types are not the only variables that impact the specific mediating functions of language. In the discussion, it was suggested that proficiency in the target language and learner agency may also account for the present findings that Marta and Paco tended to use more L1 for task management, vocabulary deliberations, and grammar deliberations.

The study also contributes to our understanding that task type impacts the production of LREs. From a pedagogical perspective, this finding is key for developing tasks that foster the construction of either lexical knowledge or grammatical knowledge – or both. In contexts where learners are concerned with accuracy, participating in form-oriented tasks can help them notice gaps in their own interlanguage and discover ways to resolve the gaps through discussions with their peers and with their teachers. The findings also support the belief that in working collaboratively, learners can provide the necessary scaffold for each other to complete the tasks where they alternate between expert and novice roles.

The findings that show a positive relationship between languaging and language development is also very interesting. In the present study, the learners demonstrated some evidence of L3 gain as a result of participating in collaborative tasks. Although the gains were not uniform across the four focal participants, they do suggest that learners experience certain benefits. The finding that some learners prefer and may do better when working individually, however, needs to be acknowledged. As such, as in any classroom context, it is important to
diversify the types of tasks and include a range of individual and collaborative tasks to keep learners engaged and motivated.

Finally, as a result of conducting this multiple case study, I was able to gain a deep understanding of how four individuals use language to mediate the development of higher mental functions. Also, by including learners’ beliefs about L1 and L2 use, I was able to identify individual differences and identify potential sources for these beliefs. In line with a number of teachers, these students prefer an L3-use only policy although they see and benefited from some L1 mediation. In EFL classrooms where learners share a common L1, banning native language use may not be necessary as it eliminates one possible tool that learners have at their disposal and may also increase the levels of anxiety.

In closing, I approached the dissertation journey with hope and curiosity. I hoped to contribute knowledge to current theories and models of L3 development by examining the cognitive and social factors that impact language development. My curiosity has helped me identify some of the complex and interrelated factors underlying the study of L2 and of L3 development. By approaching the study of L3 development from an SCT perspective, I have tried to examine various factors (e.g., learner agency, language proficiency, learner beliefs) believed to play a central role therein. Overall, by proposing answers to the research questions guiding this project, I hope to have sparked curiosities for future researchers exploring language development in a multilingual world.
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APPENDICES

(Appendix A: Consent forms

Mtra. Caroline Payant
Presente

Se extiende la presente a fin de hacer de su conocimiento que de conformidad a su solicitud, se le autoriza para llevar a cabo el trabajo de investigación denominado: "Learner-Learner Interaction: Exploring the Functions Learners' L1, and L2 Serve in L3 Development in the Foreign Language Classroom", mismo que desarrollará durante el transcurso del semestre de primavera de 2011, a través del Departamento de Lenguas de la Universidad de las Américas Puebla.

La información que se recabe con motivo de dicha investigación, independientemente del medio por el cual se obtenga, podrá ser utilizada únicamente para fines estadísticos para la elaboración del proyecto citado en el párrafo anterior, sin que se asocien datos personales de estudiantes y sin que se permita identificar al estudiante con el dato estadístico, siendo su responsabilidad el realizar las medidas tendientes a la protección de los datos personales, así como recabar el consentimiento expreso de los titulares de los datos que se recaben en el marco de la investigación que nos ocupa, de conformidad con lo previsto en la Ley Federal de Protección de Datos Personales en Possesión de los Particulares, deslindándose la Fundación Universidad de las Américas, Puebla de toda responsabilidad generada por violaciones a dicho ordenamiento.

Asimismo, y toda vez que la información a recabar tiene el carácter de confidencial, en virtud de que la misma se relacione directamente con las actividades propias de la Fundación Universidad de las Américas, Puebla, por tal motivo su uso se debe apegar a lo dispuesto por la "Política de Privacidad, Confidencialidad y Seguridad de la Información de Estudiantes" de esta Institución Educativa.

De conformidad con lo anterior, la presente autorización se le otorga únicamente para los fines específicos del trabajo de investigación que nos ocupa, comprometiéndose a guardar el más absoluto secreto sobre la misma y sobre cualquier material relacionado con ésta, por lo que bajo ninguna circunstancia podrá directa o indirectamente y en forma alguna divulgar dicha información, comunicarla, cederla, transmitirla o utilizarla en beneficio de terceros, así como duplicarla, grabarla, copiarla o de cualquier otra forma reproducirla, sea total, parcial o de cualquier forma, sin la autorización previa por escrito de la Fundación Universidad de las Américas, Puebla, ya que en caso contrario estará sujeto al pago de los daños y perjuicios que ocasionen por su incumplimiento.

Por otra parte, se deberá hacer mención en el trabajo de investigación que al efecto se elabore, a la colaboración que se obtuvo por parte de la Fundación Universidad de las Américas, Puebla para la realización del mismo.

Cabe resaltar que la autorización otorgada, no incluye el uso de los escudos, logos y demás formas de propiedad intelectual de las cuales sea propietaria la Fundación Universidad de las Américas, Puebla, por lo que en ningún caso, forma, ni tamaño, podrá hacer uso de éstos, salvo autorización por escrito de esta Institución.

ATENTAMENTE

Dra. Cecilia Anaya Berrios
Vicerrectora Académica
Fundación Universidad de las Américas, Puebla

Dra. Brita Banitz
Jefa del Departamento de Lenguas
Fundación Universidad de las Américas, Puebla

Acepto expresamente los términos y condiciones manifestados en la presente autorización:

Mtra. Caroline Payant

C.c.p.- Archivo.
Georgia State University
Department of Applied Linguistics and ESL
Informed Consent
Title: Learner-Learner Interaction: Exploring the Mediating Functions Learners’ L1, and L2 Serve in L3 Development

Principal Investigator: Dr. YouJin Kim
Student principal investigator: Caroline Payant

I. Purpose:
You are invited to participate in a research study. The purpose of the study is to investigate how students use their first and second language to help them learn a third language. You are invited to participate because you are a native Spanish speaker. You have completed 7 years of English language instruction. You are presently learning French as a third language. A total of eight participants will be recruited for this study. Participation will require 6 hours of your time over the semester. Our first meeting will be during the week of January 31st and our last meeting will be during the week of April 18th 2011.

II. Procedures:
If you decide to participate, you will complete several activities in class. There are five in-class activities. One type of activities includes oral activities. You will do 8 collaborative activities with another student in class. Each activity will last about 30 minutes. These oral activities will be audio-recorded. You will also do 4 individual production activities, each will last about 10 minutes. These will be audio-recorded. You will also fill-out a short questionnaire after the oral activities. In total there will be eight questionnaires. You will have 5 minutes to complete them in class. You will also complete 1 French proficiency test. It includes a written and a speaking activity. The written activity will last 20 minutes and will be completed in class. The speaking activity will last 15 minutes. It will be completed during my office hours. The speaking activity has three sections: a conversation, an interactive task, and a discussion of a topic that elicits their opinion. Finally, you will fill-out a language background questionnaire. You will complete this in class at the start of the semester. There are 3 additional activities that will be completed outside of class. You will be interviewed four times during the course of the semester by the student PI. The first interview will be during week 6, week 8, week 11, and week 14. In total, these interviews will last approximately 3 hours. The second type of activity outside of class is stimulated recall. This will take place during week 14 and will last approximately 30 minutes. Finally, you will complete the English proficiency test. The test will last approximately 35 minutes and you will complete it during my office hours with the student PI.

III. Risks:
There is the possibility that participation in this study may cause you to feel uncomfortable because you will be interviewed by the student PI who will also be your teacher. So that you do not feel uncomfortable, the questions will focus on features of the tasks, on your beliefs about the use of the first and second languages. Also, so that you do not feel uncomfortable, you are able to stop participating in the study at any time. This
will not affect your participation in the class. If you feel very uncomfortable, you are allowed to stop attending my class and join a different section of the same course.

IV. Benefits:
Participation in this study may benefit you personally. You will have some opportunities outside of class to practice your English and your French skills. Overall, we hope to gain information about the benefits of using other languages (for instance Spanish or English) when learning a third language in the foreign language classroom.

V. Voluntary Participation and Withdrawal:
Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may stop participating at any time in the activities outside of class. You will have to complete the in-class activities because these are part of the course. Whatever you decide, you will not lose any benefits to which you are otherwise entitled. Your participation grades and grades on the examinations will not be affected by your decision to stop participating.

VI. Confidentiality:
We will keep your records private to the extent allowed by law. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board and the Office for Human Research Protection (OHRP). I will use pseudonyms to keep your identity confidential rather than your name on study records. This pseudonym will be used for all types of data. The audio files will be downloaded to the student PI’s personal computer and will be immediately destroyed from the digital recorder. For the written documents, your name will be erased and replaced by the pseudonym. These documents will be scanned and saved on the student PI’s personal computer. The originals will be shredded. Only the student PI will have access to the information you provide. It will be stored on a password and firewall-protected computer. This computer will be kept in the residence of the student PI. Your name and other facts that might point to you will not appear when we present this study or publish its results. The findings will be summarized and reported by individual case but you will not be identified personally.

VII. Contact Persons:
Contact Dr. YouJin Kim eslyjk@langate.gsu.edu, and Caroline Payant eslcapx@langate.gsu.edu, or by phone at 404-413-5200, if you have questions about this study. If you have questions or concerns about your rights as a participant in this research study, you may contact Susan Vogtner in the Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu.

VIII. Copy of Consent Form to Subject:
We will give you a copy of this consent form to keep.
If you are willing to volunteer for this research and to be audio-recorded, please sign below.

Participant ____________________________ Date ____________________________

Principal Investigator or Researcher Obtaining Consent ____________________________ Date ____________________________
Decision-making Task 1: Apartment life

Déménager à Montréal

Scénario
En avril, toi et ton partenaire, vous déménagerez à Montréal. Pour trouver le meilleur appartement, vous êtes allés à Montréal pendant une semaine et vous avez visité 6 appartements : Toi tu as visité trois appartements et ton partenaire a visité trois différents appartements.

Vous allez prendre un café ensemble pour parler des appartements que vous avez visités pour décider où vous allez habiter en avril.

Au café, vous échangez vos informations. Ensuite, vous choisissez le meilleur appartement. En échangeant vos informations, vous devez prendre en considération les critères suivants :

- L’appartement (description)
- Coût et frais additionnelles
- Quartier et emplacement
- Informations additionnelles

Consignes
Découvrir et choisir un appartement
Échangez vos informations.
Posez plusieurs questions (avec qui, chez qui, quand, combien de temps, pour quelle(s) raison(s), comment, dans quelle rue, où, etc.) à votre partenaire pour connaître les différentes options.
Choisissez le meilleur appartement : prenez en considération les quatre critères suivants :
- L’appartement (description)
- Coût et frais additionnelles
- Quartier et emplacement
- Informations additionnelles
En échangeant vos informations, assurez-vous de comparer les différents appartements!
Pour vous aider, vous pouvez vous montrer les photos mais posez des questions!

- Pas à suivre
- Allumez l’enregistreuse et ne l’arrêtez pas! Même pour la partie écrite 😊
- Dites vos noms.
- Échangez vos informations.
<table>
<thead>
<tr>
<th><strong>Informations additionnelles</strong></th>
<th><strong>Coût:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Donne sur un parc animé et entretenu</td>
<td>• $600 par mois chaque, non-meublé</td>
</tr>
<tr>
<td>• 6 électroménagers (réfrigérateur etc.)</td>
<td>• + électricité, gaz naturel</td>
</tr>
<tr>
<td>• Non-fumeur</td>
<td>• Pas d’internet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Quartier et emplacement:</strong></th>
<th><strong>Description:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Près de l’université</td>
<td>• 1 petite salle de bains</td>
</tr>
<tr>
<td>• Shopping : 10 minutes en métro</td>
<td>• 1 chambre à coucher et 1 grand bureau</td>
</tr>
<tr>
<td>• 3 minutes au métro</td>
<td>• Rénové, beau, ensoleillé</td>
</tr>
</tbody>
</table>
Publicité – Semaine Santé

Scénario
Pour la semaine de la santé, la Fondation Alliance Française lance le concours «Jeunesse en forme». La Fondation vous invite à créer un dépliant dans lequel vous exposerez les pratiques alimentaires, sportives, et culturelles d’un pays étranger.

Consigne – Partie A
Vous voulez participer au concours et présenter un dépliant.
Vous avez trouvé des informations et des images différentes.
Aujourd’hui, vous devez échanger les informations pour chaque pays.
En échangeant vos informations, comparez les informations pour choisir le pays qui a les pratiques les plus intéressantes et différentes (selon vous).
Les pas à suivre
1. Échangez vos informations (vous pouvez écrire sur les fiches). Comment ? L’objectif n’est PAS DE LIRE votre information à votre partenaire. L’objectif est de poser des questions à votre partenaire. Utilisez les images pour vous aider à penser à des questions!
2. En échangeant l’information, choisissez un pays en prenant en considération les quatre critères suivants :
   i. Les bonnes et mauvaises habitudes
   ii. Les pratiques originales/différentes
   iii. La variété des aliments
   iv. La variété des activités physiques
Consigne – Partie B

1. Lorsque vous avez choisi le meilleur pays, préparez un dépliant *

2. Contenu :
   a. Description des pratiques alimentaires (paragraphe)
   b. Slogans et conseils de santé
   c. Comparaison entre les différentes pratiques du pays que vous avez choisi et le Mexique
   d. Spécialités culinaires (inventez la recette d’un plat)

3. Grammaire, vous devez inclure :
   a. Le subjonctif présent
      i. Il faut que; il est nécessaire que; Nous voulons que vous...
   b. Le gérondif
      i. En prenant soin de ma santé…
      ii. En utilisant des bons ingrédients…
   c. La comparaison
   d. Les articles partitifs

*Le dépliant peut ressembler à celui-ci:
## I - Grèce

<table>
<thead>
<tr>
<th>Réponses suggérées</th>
<th>Tu veux l’info des</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coutumes et faits divers</strong></td>
<td>Activités physiques</td>
</tr>
<tr>
<td>• 35% → fumeur</td>
<td></td>
</tr>
<tr>
<td>• 22% → obèse</td>
<td></td>
</tr>
<tr>
<td><strong>Pratiques alimentaires</strong></td>
<td></td>
</tr>
<tr>
<td>• Partager les repas (maison, restaurant ou taverne)</td>
<td></td>
</tr>
<tr>
<td>• +++ légumes frais, fines herbes</td>
<td></td>
</tr>
<tr>
<td>• Impoli de commander pour soi-même</td>
<td></td>
</tr>
<tr>
<td>• 20 litres d’huile d’olive X personne X année</td>
<td></td>
</tr>
</tbody>
</table>

| Spécialités culinaires et boissons                      |                                     |
| • Mousaka (aubergine, porc), salade grecques            |                                     |
| • Brochettes d’agneau (souvloakis)                      |                                     |
| • Huîtres, calamars, crevettes, etc.                    |                                     |

| Activités physiques                                    |                                     |
| • Soccer, basket-ball                                  |                                     |
| • Plongée sous-marine                                  |                                     |
| • Exercice → pas assez 😔                               |                                     |
La collocation

Vivre avec quelqu’un

Scénario

L’année dernière, Julie habitait dans un appartement qui avait deux chambres. Elle voulait vivre avec quelqu’un et elle a décidé de chercher un colocataire pour partager son appartement.

Consigne

Toi et ton partenaire avez quatre images différentes (8 en tout) qui racontent l’histoire de Julie. Votre tâche c’est de reconstruire son histoire. Pour ce faire, vous devez décrire vos images en détail à votre partenaire et ensemble vous allez mettre les images en ordre.

Ne regardez pas les photos de votre partenaire©

Lorsque vous avez trouvé l’ordre des images, regardez toutes les images : mais pas avant!!!

Consigne pour enregistrer

• Allumez l’enregistreuse.
• Dites vos noms.
• N’arrêtez pas l’enregistreuse…Même si vous avez terminé ;)

Story completion 1
Consigne

Lorsque vous avez trouvé l’ordre des images, écrivez l’histoire de Julie!

Contenu de l’histoire :
1. Décrivez chaque image avec des détails intéressants — trouvez des nouveaux adjectifs et des nouveaux mots pour décrire les images.
2. Invenitez des dialogues entre Julie et Pierre pour rendre l’histoire intéressante!
3. Indiquez les choses que Julie et Pierre doivent faire : les règlements de l’appartement

Grammaire à utiliser :
1. Utilisez l’imparfait, le passé composé (dans la narration)
2. Utilisez le conditionnel présent (dans le dialogue)
3. Utilisez le pronom relatif : Nouveau!!!
   a. Qui : J’aime les appartements qui sont jolis
      i. J’aime les appartements. Les appartements sont jolis.
   b. Que : J’aime l’appartement que tu as.
      i. J’aime l’appartement. Tu as un appartement.
   c. Oui : J’aime l’appartement où tu es.
      i. J’aime l’appartement. Tu es dans un appartement.
La malbouffe

Scénario
Marie, c’est une petite fille qui a des bonnes habitudes alimentaires. Mais, avec les années, elle change ses habitudes alimentaires et sportives. Ces changements affectent sa santé physique et morale.

Consigne #1
Toi et ton partenaire avez trois images différentes (6 en tout) qui racontent l’histoire de Marie. Votre tâche c’est de reconstruire l’histoire de Marie en mettant les images en ordre!

Pour ce faire, vous devez décrire vos images en détails et poser des questions à votre partenaire afin de mettre les images en ordre.

Ne regardez pas les photos de votre partenaire!
Si vous avez des doutes... questionnez-le/la

Lorsque vous avez l’ordre final de toutes les images, vous pouvez montrer les images et confirmer l’ordre.

Il est important de cacher ses images pour travailler la compréhension et la production orale!!!

Consigne #2
Lorsque vous avez trouvé l’ordre des images, écrivez l’histoire de Marie!

Dans la narration, utilisez :
- L’imparfait
- Le passé composé

Dans le dialogue :
- Le subjonctif présent
- Le conditionnel

Vous devez aussi essayer de travailler :
- La comparaison
- Quantité indéterminée (du, de la, d’, des)
- Quantité déterminée (un peu, beaucoup, 1 litre de...)
Scénario

Monique, Isabelle et Louise sont des bonnes amies. Monique est déménagée à Puebla et ses deux amies, Isabelle et Louise, sont venues à Cholula pour la fin de semaine.

Consigne

Le texte raconte les aventures de trois filles. Il inclut des dialogues et de la narration. Dans le dialogue, elles font des plans pour la journée. Dans la narration, nous découvrirons les endroits insolites qu’elles ont visités.

Mais, il y a plusieurs omissions et fautes de grammaire. Avec votre partenaire, trouvez les omissions et les erreurs et réécrivez le texte sur une autre feuille.

Des indices 😐

La narration : le texte est écrit au passé composé
Le dialogue : le texte est écrit au présent, à l’imparfait, au conditionnel!

Les omissions et les corrections :

Conjugez les verbes, ajoutez les pronoms relatifs, mettez les articles nécessaires, faites les accords entre les noms et les adjectifs si c’est nécessaire, etc.
Exemple

Pour la narration :

Exemple 1 : semaine derniere, mes amies organiser une fête.
Correction : La semaine derniere, mes amies ont organise une fête.

Explication
La : il faut mettre un article devant un nom
ont : le verbe « organiser » au passé composé se conjuge avec l’auxiliaire « avoir »
organisé : le C.O.D. est après le participe passé donc il ne faut pas faire d’accord

Pour le dialogue :

Exemple 2 : « Et si on aller Puebla? »
Correction : « Et si on allait à Puebla? »

Explication
Allait : Pour faire une proposition, on peut utiliser si + imparfait
À : Pour parler d’un lieu, il faut une préposition

Partie 2

Consigne

1. Maintenant, comparez votre version corrigée avec une version complète. Vérifiez chaque mot très attentivement!

2. S’il y a des différences entre votre version et la version complète,
   a. Discutez des différences
   b. Donnez une explication qui explique la différence!

   Par exemple :

   On a écrit XXX mais la version dit XXX. Il faudrait mettre XXX parce que XXX.

   c. Faites les modifications si nécessaires.
   d. Si vous ne comprenez pas la différence, dites-le-moi!
Lieux insolites à Puebla

1 week-end dernier, mes amies venir me rendre visite.
2 Les activités, nous le choisir ensemble.

3 Monique : « Ça ne vous dire pas d’aller à Puebla?
4 Il y a des allées étroits il y a plein de vendeurs
5 sympathiques.
6 Louise : Ce n’est pas mauvaise idée! »

7 Nous commencer avec le musée Amparo.
8 Ensuite, nous visiter immense cathédrale être majestueuse.
9 Isabelle le trouver aussi fascinante que celui de Chihuahua!

10 Monique : « Et si on aller découvrir lieux insolite? »

11 Nous marcher dans « Quartier des Artistes ».
12 Les artistes qui nous rencontrer, nous expliquer l’art local!
13 Cet endroit, nous trouver aussi plaisant que celle de Coyacan!

14 Après, nous se diriger vers le marché puces nous acheter des
15 antiquités et tapis.
16 Cette place, Isabelle lui adorer.

17 Ensuite, pour connaitre plat typiques de Puebla, nous être à « la
18 Guadalupana».
19 Nous trouver la cuisine plus savoureuse celle de Montréal.

20 Nous passer une journée inoubliable!
21 Le lendemain, elles partir.
Lieux insolites à Puebla

1. Le week-end dernier, mes amies sont venues me rendre visite.
2. Les activités, nous les avons choisies ensemble.
3. Monique : « Ça ne vous dirait pas d’aller à Puebla ?
   Il y a des allées étroites où il y a plein de vendeurs sympathiques.
4. Louise : Ce n’est pas une mauvaise idée !
5. Nous avons commencé avec le musée Amparo.
6. Ensuite, nous avons visité l’immense cathédrale qui est majestueuse.
7. Isabelle l’a trouvée aussi fascinante que celle de Chihushua !

8. Monique : « Et si on allait découvrir des lieux insolites ?
9. Nous avons marché dans le « Quartier des Artistes ».
10. Les artistes que nous avons rencontrés, nous ont expliqué l’art local !
11. Cet endroit, nous l’avons trouvé aussi plaisant que celui de Coyacan !

12. Après, nous nous sommes dirigées vers le marché aux puces où nous avons acheté des antiquités et des tapis.
13. Cette place, Isabelle l’a adorée.

14. Ensuite, pour connaître les plats typiques de Puebla, nous avons été à « la Guadalupana ».
15. Nous avons trouvé la cuisine plus savoureuse que celle de Montréal.

16. Nous avons passé une journée inoubliable !
17. Le lendemain, elles sont parties.
**Scénario**

Anne adore les films et l'internet. Elle passe des heures à chercher des films gratuits.
Mais cette année, elle a eu des problèmes!

**Consigne**

Le texte raconte les problèmes d'Anne. Il inclut du dialogue et de la narration.
Mais, il y a plusieurs omissions et fautes de grammaire.
Avec votre partenaire, trouvez les omissions et les erreurs et faites les corrections.

**Les omissions et les corrections** :

Conjugez les verbes, ajoutez les pronoms relatifs, mettez les articles nécessaires, faites les accords, etc.

**Des indices ☀**

**La narration** :
le texte est écrit au passé à la voix active et passive et au subjonctif

**Le dialogue** :
le texte est écrit au conditionnel, au passé à la voix active et passive et au subjonctif

Pour chaque erreur, vous devez proposer 1 réponse!
Lorsque vous avez fait toutes les modifications, dites-le-moi!
Exemple

Pour la narration:

Exemple 1 : Hier, dossier être éliminer.
Correction : Hier, le dossier a été éliminé.

Explication

Le : il faut mettre un article devant un nom
a été : pour la voix passive, on utilise le verbe être au passé composé
éliminé : le participe passé s’accorde avec le sujet

Pour le dialogue :

Exemple 2 : « Où est son document?
Le sien? Il faut qu’il l’imprime. »
Correction : « Où est son document?
Le sien? Il faut qu’il l’imprime. »

Explication

sien : le pronom possessif sien remplace un nom
L’assistance à distance donnée via une page Web

1 janvier, Anne télécharger un film quand soudainement un message appareître à écran :
3 « Vos logiciels être contaminer».
4 En lire le message, ses fenêtres se fermer et l’écran devenir rouge.
5 Elle téléphoner à un technicien.
6 Anne : « Pouvoir vous me aider, mon ordi tomber en panne! 
7 Technicien : Ok! Premièrement, j’aimer que vous répondre à quelque 
8 questions.
9 Votre ordinateur être acheter quand?
10 Anne : Le mon? Il me être donner en décembre.
11 Technicien : Quels sites être visiter dernièrement?
12 Anne : Les pages internet que je explorer sont celui que 
13 permettent le téléchargement gratuit. »
14 Le technicien la dire qu’il serait mieux qu’elle ne aller pas sur ces sites 
15 puisqu’ils contenir logiciels espions.
16 Impatiente, elle le répondre:
17 Anne : « Merci, mais ce ne sont des conseils je vous demander! 
18 Je veux vous régler le problème!
19 Technicien : Oui. pardon. »
20 Il se mettre au travail.
21 Grâce l’assistance donner via une page Web, ses problèmes être résoudre.
22 Depuis, Anne arrêter de visiter ces sites.
L’assistance à distance donnée via une page Web

1 En janvier, Anne téléchargeait un film quand soudainement un message est apparu à l’écran :
2 « Vos logiciels ont été contaminés ».
3 En lisant le message, ses fenêtres se sont fermées et l’écran est devenu rouge.
4 Elle a téléphoné à un technicien.
5 Anne : « Pourriez-vous m’aider, mon ordi est tombé en panne !
6 Technicien : Ok ! Premièrement, j’aimerais que vous répondiez à quelques questions.
7 Votre ordinateur a été acheté quand ?
8 Anne : Le mien ? Il m’a été donné en décembre.
9 Technicien : Quels sites ont été visités dernièrement ?
10 Anne : Les pages internet que j’ai explorées sont celles qui permettent le téléchargement gratuit. »
11 Le technicien lui a dit qu’il serait mieux qu’elle n’aille pas sur ces sites puisqu’ils contiennent des logiciels espions.
12 Impatiente, elle lui a répondu :
13 Anne : « Merci, mais ce ne sont pas des conseils que je vous ai demandés !
14 Je veux que vous régliez le problème !
15 Technicien : Oui, pardon. »
16 Il s’est mis au travail.
17 Grâce à l’assistance donnée via une page Web, ses problèmes ont été résolus.
18 Depuis, Anne a arrêté de visiter ces sites.
Dictogloss #1

1 Salut David!
2 C'est moi Suzanne!
3 Nous nous sommes rencontrés à l'aéroport de Cancun et nous avons partagé un taxi jusqu'à l'hôtel « les Oiseaux des Caraïbes ».
4 Le chauffeur a sorti nos valises de sa voiture allemande et un vieil homme les a apportées au lobby.
5 Nous sommes ensuite allés au restaurant.
6 Celui près de la plage!
7 Nous avons discuté du voyage et Tulum nous a intéressés.
8 Nous avons fait des plans pour y aller le lendemain à 8 heures!
9 Malheureusement, j'ai dormi 12 heures et notre rendez-vous, je l'ai manqué.
10 J'aimerais te faire une nouvelle proposition.
11 Si on allait à Coba demain?
12 Je me souviens que tu es passionné par l'histoire et la jungle!
13 Nous pourrions louer une voiture!
14 Laisse-moi un message sur mon portable!
15 Suzanne, la jeune femme qui ne s'est pas réveillée.
IL Y À QUELQU’UN?

Scénario

Suzanne est à Cancun pendant une semaine. Elle souhaite retrouver David, un jeune garçon qu’elle a rencontré à l’aéroport!
Écoutez le message qu’elle lui a laissé sur la boîte vocale de sa chambre.

Consigne

Vous allez entendre l’enregistrement 2 fois! Prenez des notes détaillées durant l’écoute!
Dans vos notes, vous devez prendre en ligne de compte :
• Les temps de verbe
• L’utilisation des pronoms relatifs
• L’utilisation des objets directs (et où ils sont placés)
• L’emplacement des adjectifs qualificatifs

Après vous allez reconstruire le texte ensemble.
Essayez de garder les mêmes structures que dans l’enregistrement!

Ensuite, vous allez entendre l’enregistrement une 3ème fois.

Finalement, vous allez recevoir une version écrite du texte.
Votre tâche c’est de comparer les textes et faire les modifications nécessaires.

Chaque fois qu’il y a une différence de contenu et de grammaire, faites les corrections!
Il est important d’expliquer les différences pour vous aider à comprendre la grammaire!
Les fichiers musicaux

Scénario
Isabelle vient de découvrir un site internet incroyable. Elle téléphone à son ami Benoît pour partager la grande nouvelle!
Écoutez le message qu'elle lui a laissé sur sa boîte vocale.

Consigne
Vous allez entendre l’enregistrement 2 fois! Prenez des notes détaillées durant l’écoute!
Dans vos notes, vous devez prendre en ligne de compte :
- Les temps de verbe
- L’utilisation des pronoms relatifs
- L’utilisation des objets directs (et où ils sont placés)
- L’emplacement des adjectifs qualificatifs

Après vous allez reconstruire le texte ensemble.
Essayez de garder les mêmes structures que dans l’enregistrement!

Ensuite, vous allez entendre l’enregistrement une 3ème fois.

Finalement, vous allez recevoir une version écrite du texte.
Votre tâche c’est de comparer les textes et faire les modifications nécessaires.

Chaque fois qu’il y a une différence de contenu et de grammaire, faites les corrections!
Il est important d’expliquer les différences pour vous aider à comprendre la grammaire!
Salut Benoit!

Tu ne devineras jamais ce que j’ai trouvé!

Ce matin, je naviguais sur internet en buvant mon café puis j’ai découvert le meilleur site de téléchargement illégal de fichiers musicaux.

Il faut que tu ailles sur ce site pour que tu voies toutes les chansons disponibles!

Celles que j’ai téléchargées, c’est la crème de la crème!

J’ai téléchargé les plus belles chansons que Garou a écrites!

Elles ont été ajoutées ce matin!

C’est fou!

Je sais que tu penses que c’est du vol.

Mais j’en ai marre d’acheter de la musique des maisons de disque qui ont plus d’argent que nous!

Il n’y a aucun danger qu’elles fassent banqueroute.

Et si tu venais chez moi ce soir?

On pourrait en télécharger plusieurs ensemble!

Appelle-moi!

Ton amie qui est fascinée par la nouvelle technologie!
Nom : ______________________

Version individuelle

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15
Noms : __________________________

Version collective

1

2

3

4

5

6

7

8

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10

11

12

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14

15
Appendix C: French oral and written proficiency examinations

Première section :
Monologue : (3 minutes)

Présentation

Parle-moi de toi :
- tes intérêts et goûts (passés et présents),
- tes projets personnels et professionnels (présent, passés, et futurs),
- et de tes études (présent, passées).

Tu devras parler pendant 2 minutes. Tu as 45 secondes pour te préparer.

Deuxième section :
Dialogue : (5 minutes)

Projet documentaire

Parle-moi de ton projet :
Tu veux appliquer à un concours pour faire un projet documentaire sur la ville de Oaxaca. Tu dois t’informer au sujet du concours en posant des questions sur :
- les dates d’inscription,
- l’argent,
- l’âge pour participer,
- les documents à remplir.

Ensuite, tu dois décrire le lieu et expliquer tes souhaits et tes intentions avec le prix gagnant.

Tu devras parler pendant 2.5 minutes. Tu as 45 secondes pour te préparer.
Troisième Section:
Dialogue : (5 minutes)

Vivre dans une nouvelle ville

Parle-moi de ta ville :
Ta meilleure amie, va déménager à Cholula. Elle ne sait rien à propos du Mexique. Elle te demande à propos de ta situation actuelle :
- Où tu habites, (le quartier, l’appartement),
- Avec qui tu habites,
- Les règlements où tu habites
- Le coût,
- Les endroits pour peux manger et boire.

Elle est très nerveuse donc tu dois la rassurer!
Tu devras parler pendant 2.5 minutes. Tu as 45 secondes pour te préparer.

Quatrième section:
Monologue : (6 minutes)

Donner des conseils

Donne-moi des conseils pour un voyage
Une amie a décidé de partir en vacances. Tu lui raconte ton dernier voyage et tu dois
- Faire des suggestions sur les lieux et activités culturelles,
- Donner des conseils : ce qu’il faut qu’il/elle fasse/mange/connaiss etc.
- Les choses apportées (ordinateur, camera, i-phone, etc.)
- Parler des dates et des meilleurs temps,
- Le budget.

Tu as 45 secondes pour te préparer – tu dois parler pendant 3.5 minutes.
Nom: ____________________

Communication écrite

La loterie : 1 million de pesos!
Tu espères gagner la loterie. Tu parles à un ami qui te demande ce que tu feras si tu gagnes 1 million de pesos! Écris un dialogue entre toi et ton ami. Tu dois utiliser les adjectifs, l'hypothèse, les mots interrogatifs, et les C.O.D pour parler de tes souhaits et de tes intentions.

Toi : Salut Pierre. Devine ce que je viens d’acheter! Je viens d’acheter un billet pour la loterie!

Pierre : Sauf!

Partie II : Vous recevez le mail suivant :

Vous répondez à Pierre. Parlez-lui d’un voyage que vous avez fait avec votre famille.


N’oubliez d’utiliser l’imparfait, le passé composé, et les objets directs placés avant et après le participe passé! Montrez-moi ce que vous savez :)
Appendix D: English oral and written proficiency examinations

Section I: General Presentation – 2 minutes

a) Where did you learn English?

Section II: Expressing a point of view – 3 minutes

a) Teachers are not always needed

Some people think that they can learn better by themselves than with a teacher. Others think that it is always better to have a teacher. Which do you prefer? Use specific reasons to develop your answer.

Section III: Expressing an opinion – 3 minutes

a) At the university level, attending class should be optional.

Some people believe that university students should be required to attend classes. Others believe that going to classes should be optional for students. Which point of view do you agree with? Use specific reasons and details to explain your answer.

Written prompt

Read the following statement and answer in approximately 80-100 words:

Do you agree or disagree with the following statement? Parents should make important decisions for their older (15 to 18 year-old) teenage children. Use specific reasons and examples to support your opinion.
Appendix E: Interview protocol

Guiding questions for interviews 1-3

1. La semana pasada, hiciste 2 tipos de actividades, ¿Cuál era el propósito de la actividad?
2. La semana pasada, hiciste 2 tipos de actividades, ¿En qué te enfocaste?
3. La semana pasada, hiciste 2 tipos de actividades, ¿Cuál te gusto más y por qué?
4. La semana pasada, hiciste 2 tipos de actividades, ¿Cuál se te hizo más difícil?
5. ¿Qué cambios le harías a la actividad?
6. ¿En qué idioma trabajaron?
7. La semana pasada, trabajaste con 2 compañeros, ¿Con quién te gustó más y por qué?
8. La semana pasada, trabajaste con 2 compañeros, ¿Qué le aportaste a la interacción?

English version of interview protocols 1-3

1. Last week you did two tasks, what was the objective of the task?
2. Last week you did two tasks, what did you focus on?
3. Last week you did two tasks, which one did you like best and why?
4. Last week you did two tasks, which one was more difficult and why?
5. What changes would you bring to the tasks?
6. In which language did you work?
7. Last week you worked with two of your classmates, who did you prefer working with and why?
8. Last week you worked with two of your classmates, in what ways did you contribute to the task?
Exit interview protocol

1. Durante el semestre, hiciste 4 tipos de actividades. ¿Cuál te gustó más y por qué?

2. Durante el semestre, hiciste 4 tipos de actividades. ¿Cual se te hizo más difícil?

3. Imagina que eres profesor de idiomas y tus alumnos hablan español, ¿qué harías?

4. ¿Con quién usaste mas español? y ¿por qué?

5. ¿Con quién usaste mas francés? y ¿por qué?

6. ¿Con quién usaste más inglés?, y ¿por qué?

7. ¿Cuánto español/francés piensas que se debería permitir en las clases?

8. ¿Cuánto español/francés piensas debería hablar el profesor en las clases?

9. ¿Donde aprendiste el inglés/francés?

English version of exit interview protocol

1. During the semester, you participated in 4 types of activities. Which one did you prefer and why?

2. During the semester, you participated in 4 types of activities. Which one was easiest and why?

3. Imagine that you are a language teacher and your students are using Spanish. What would you do?

4. Who did you use more Spanish with and why?

5. Who did you use more French with and why?

6. Who did you use more English with and why?

7. How much Spanish/French do you think you should be allowed to use in the classroom?

8. How much Spanish/French do you think the teacher should use?

9. Where did you learn English/French?
Appendix F: Language background questionnaire

Questionnaire

Veuillez compléter ce questionnaire. Vous pouvez répondre en espagnol!

1. Nom: ______________________________________

2. Age: ______________________________________

3. Carrière à la UDLA : J'étudie en: ______________________________________

4. Langue(s) maternelle(s): ______________ 6. 3ème langue apprise: ______________

5. 2ème langue apprise: ______________ 7. 4ème langue apprise: ______________

8. En ordre, quelle langue parlez-vous mieux:
   (1) Espagnol / (2) ______________ / (3) ______________ / (4) ______________

9. Langue(s) parlée(s) à la maison (si vous parlez plus d'une langue, spécifiez combien de temps vous utilisez chaque langue):
   a) langue: ______________ temps: ______________
   b) langue: ______________ temps: ______________

10. Si vous parlez plus d'une langue, quand utilisez-vous chaque langue (dans quelles situations)?

11. Langue(s) parlée(s) avec amis (si vous parlez plus d'une langue, spécifiez combien de temps vous utilisez chaque langue):
   a) langue: __________ temps: __________
   b) langue: __________ temps: __________

12. Si vous parlez plus d'une langue, quand utilisez-vous chaque langue (dans quelles situations)?

13. Durée d'apprentissage de votre 2ème langue: mois: __________ année: __________

14. Durée d'apprentissage de votre 3ème langue: mois: __________ année: __________

15. Durée d'apprentissage de votre 4ème langue: mois: __________ année: __________

16. Langue(s) que vous étudiez actuellement:
   a) ______________________________________
   b) ______________________________________
17. En général, quelles activités aimez-vous faire dans un cours de langue :


18. De 1 à 6, évaluez votre niveau d’anglais comparé à celui des autres étudiants dans le dernier cours d’anglais que vous avez pris (dans vos souvenirs). J’ai ou j’avais…

<table>
<thead>
<tr>
<th>Le plus avancé</th>
<th>Plus avancé</th>
<th>Un peu plus avancé</th>
<th>Un peu moins avancé</th>
<th>Moins avancé</th>
<th>Le moins avancé</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

19. De 1 à 6, évaluez votre niveau d’anglais comparé à celui d’un anglophone (pour qui l’anglais c’est sa langue maternelle). Aujourd’hui, mon anglais est… :

<table>
<thead>
<tr>
<th>Le plus avancé</th>
<th>Plus avancé</th>
<th>Un peu plus avancé</th>
<th>Un peu moins avancé</th>
<th>Moins avancé</th>
<th>Le moins avancé</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

20. De 1 à 6, à quel point est-il important d’atteindre un niveau avancé en anglais.

<table>
<thead>
<tr>
<th>Très important</th>
<th>Important</th>
<th>Un peu important</th>
<th>Pas tellement important</th>
<th>Pas important</th>
<th>Pas du tout important</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

21. Quels étaient ou quels sont vos raisons pour apprendre l’anglais.
22. De 1 à 6, évaluez votre niveau de français comparé à celui des autres étudiants dans votre classe (en ce moment). Mon niveau de français est :

<table>
<thead>
<tr>
<th>Le plus avancé</th>
<th>Plus avancé</th>
<th>Un peu plus avancé</th>
<th>Un peu moins avancé</th>
<th>Moins avancé</th>
<th>Le moins avancé</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

23. De 1 à 6, évaluez votre niveau de français comparé à celui d’un francophone (pour qui le français c’est sa langue maternelle). Aujourd’hui, mon niveau de français est :

<table>
<thead>
<tr>
<th>Le plus avancé</th>
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<th>Un peu plus avancé</th>
<th>Un peu moins avancé</th>
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</tr>
</tbody>
</table>

24. De 1 à 6, à quel point est-il important d’atteindre un niveau avancé en français.

<table>
<thead>
<tr>
<th>Très important</th>
<th>Important</th>
<th>Un peu important</th>
<th>Pas tellement important</th>
<th>Pas important</th>
<th>Pas du tout important</th>
</tr>
</thead>
<tbody>
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<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

25. Dites quels aspects sont : très difficile / difficile / facile / très facile

Compréhension écrite (lire) : __________ Production écrite (écrire) : __________
Compréhension orale (écouter) : __________ Production orale (parler) : __________

26. Quels sont vos raisons pour apprendre le français.

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
A faire seulement si vous étudiez présentement une 3ème langue. Sinon, passez à la question # 31.

27. De 1 à 6, évaluez votre niveau de ______________ comparé à celui des autres étudiants dans votre classe (en ce moment). Mon niveau de ______________ est…

<table>
<thead>
<tr>
<th>Le plus avancé</th>
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<th>Un peu moins avancé</th>
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<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

28. De 1 à 6, évaluez votre niveau de ______________ comparé à celui d’un ______________ (pour qui le ______________ c’est sa langue maternelle). Mon niveau de ______________ est :

<table>
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</tbody>
</table>

29. De 1 à 6, à quel point est-il important pour vous d’atteindre un niveau avancé en ______________.

<table>
<thead>
<tr>
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</tr>
</tbody>
</table>

30. Quels sont vos raisons pour apprendre le ______________.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

31. Avez-vous déjà participé dans un programme d’échange à l’étranger? Oui O Non O

32. Dans combien de programme avez-vous participé? 1 O 2 O 3 O

Si non, allez à la question #46

33. Si oui, dans quel pays:
   a) ______________
   b) ______________

34. Durée de temps à l’étranger dans le 1er programme: mois: ________ année: ________
35. Langue(s) parlée(s) dans ce pays: 
   a) __________________________
   b) __________________________

36. Avez-vous pris des cours de langue durant votre 1ère échange? Oui O Non O

37. Si vous avez pris des cours, veuillez écrire le nom des cours.
   ____________________________________________________________
   ____________________________________________________________

38. Combien d'heures de cours aviez-vous?
   Chaque jour: __________________________
   Chaque semaine: _________________________

39. Combien de temps par jour (en moyenne) utilisez-vous cette ou ces langue(s) à l'extérieur de l'école?
   a) __________________________
   b) __________________________

40. Durée de temps à l'étranger dans le 2ème programme mois: ______ année: ______

41. Langue(s) parlée(s) dans ce pays: 
   a) __________________________
   b) __________________________

42. Avez-vous pris des cours de langue durant votre 2ème échange? Oui O Non O

43. Si vous avez pris des cours, veuillez écrire le nom des cours.
   ____________________________________________________________
   ____________________________________________________________

44. Combien d'heures de cours aviez-vous?
   Chaque jour: __________________________
   Chaque semaine: _________________________

45. Combien de temps par jour (en moyenne) utilisez-vous cette ou ces langue(s) à l'extérieur de l'école?
   a) __________________________
   b) __________________________
46. Veuillez partager d'autres informations au sujet de vos expériences avec l'apprentissage d'une langue étrangère.

47. Si vous voulez me dire autre chose, utilisez cet espace :

Merci!

Vendredi, le 28 janvier 2011